

30.0EK+15R131/1T799F

~~Engine~~

Serial # C760107977

Approval # 2979

Engine model # CSPF

Manufacturer Ford Motor

Generator Model 2001-0326

# Onan

## Parts Manual

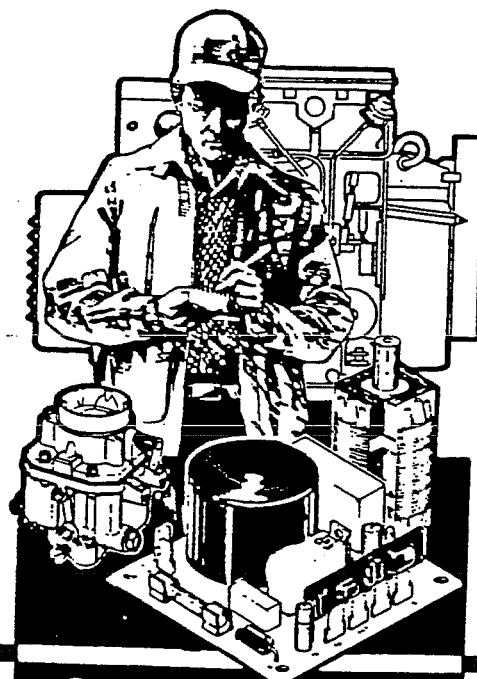
DB Series

DC Series

DM Series

620 - 900 kW

GEN SETS



**Onan Service Parts**

903-0207

8-88

Printed in U.S.A.



## TABLE OF CONTENTS

INTRODUCTION .....	2
INDEX .....	3
EXTERNAL ENGINE COMPONENTS - RIGHT SIDE .....	5
EXTERNAL ENGINE COMPONENTS - LEFT SIDE .....	7
ENGINE COOLANT HEATER (KIM TYPE).....	9
ENGINE COOLANT HEATER (WATLOW TYPE).....	11
GOVERNOR .....	12
TABLE OF CONTENTS FOR GENERATOR SECTION .....	31
GENERATOR (SPEC A) .....	33
GENERATOR (BEGIN SPEC B) .....	35
STATOR SECTION OF GENERATOR FRAME 6 .....	37
ROTOR SECTION OF GENERATOR FRAME 6 .....	39
OVERSPEED SENSOR .....	40
OVERSPEED SWITCH .....	41
PERMANENT MAGNET EXCITER .....	42
TABLE OF CONTENTS FOR GENERATOR SET CONTROLS .....	51
GENERATOR SET CONTROL (WITH HOUSING ENCLOSURE) .....	53
ENGINE CONTROL COMPONENTS (SETS WITH HOUSING ENCLOSURE) ....	55
GENERATOR CONTROL COMPONENTS (SETS WITH HOUSING ENCLOSURE)..	57
CONTROL HEATER (SETS WITH HOUSING ENCLOSURE) .....	58
POTENTIAL TRANSFORMER (SETS WITH HOUSING ENCLOSURE .....	59
BLANK PAGE .....	60
WATTMETER (SETS WITH HOUSING ENCLOSURE) .....	61
GENERATOR SET CONTROL (WITHOUT HOUSING ENCLOSURE).....	63
ENGINE CONTROL COMPONENTS (SETS WITHOUT HOUSING ENCLOSURE)..	65
GENERATOR CONTROL COMPONENTS(SETS WITHOUT HOUSING ENCLOSURE)	67
BLANK PAGE .....	68

## Introduction

This Parts Manual applies to the Standard Gen Sets Listed below. The illustrations are arranged in groups of related items, and each part or assembly is identified by a Reference Number. All parts illustrated are typical, and unless otherwise mentioned in the description column the parts are interchangeable between models.

These typical illustrations are subject to change and reflect only the latest replacement parts arrangement. The Right and Left sides of the Set are determined by FACING the FRONT (Engine end) of the Set.

### Set Data Table

MODEL IDENTIFICATION	RATING	RPM RATING	BATTERY VOLTAGE
620.0D_JA - */ # @	620,000 WATTS	1500 RPM	24 VDC
750.0D_JA - */ # @	750,000 WATTS	1800 RPM	24 VDC
800.0D_JB - */ # @	800,000 WATTS	1800 RPM	24 VDC
800.0D_KA - */ # @	800,000 WATTS	1500 RPM	24 VDC
900.0D_KA - */ # @	900,000 WATTS	1800 RPM	24 VDC

- \* - Voltage Codes follow Model Letter designations.
- # - Specification Number: Number 1 is Standard, all others indicate variations.
- @ - Specification Letter: Letter advances ( A to B, B to C, etc) with major manufacturing changes.

### Electrical Data Table

*VOLTAGE CODE	VOLTS	HERTZ	WIRE	PHASE	NOTES
H	347/600	60	4	3	
K	120/208	60	12	3	+
	127/220	60	12	3	
	139/240	60	12	3	
	240/416	60	12	3	
	254/440	60	12	3	
	277/480	60	12	3	
Y	110/190	50	12	3	+
	115/200	50	12	3	
	120/208	50	12	3	
	127/220	50	12	3	
	220/380	50	12	3	
	230/400	50	12	3	
	240/416	50	12	3	
	254/440	50	12	3	

+ - The Stators are Reconnectible.

## Engine Replacement Parts

The External Engine Components added or modified during the Generator Set Assembly have been identified in this Parts Manual. For Internal Engine Parts and External Engine Accessories not covered herein; refer to the applicable Cummins Engine Parts Catalog.

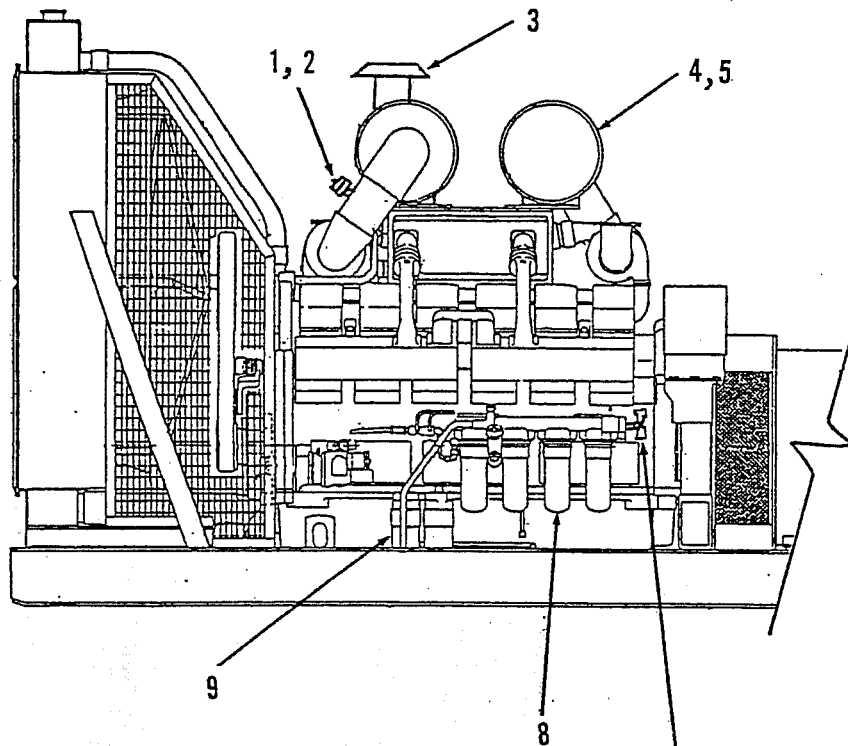
## Index

Adapter, Generator 39  
Ammeter - AC 57,67  
Ammeter - DC 55,65  
Bracket, End - Generator 39  
Cable, Battery 7  
Cap, Radiator 7  
Control, Engine 55,65  
Control, Generator 57,67  
Control, Generator Set 53,63  
Cooling System 7  
Disk, Drive - Generator 39  
Gauge, Pressure - Oil 55,65  
Gauge, Temperature - Oil 55,65  
Gauge, Temperature - Water 55,65  
Generator 33,35  
Harness, Wiring - Control (AC) 57,67  
Harness, Wiring - Control (DC) 55,65  
Harness, Wiring - Control To Engine 55,63  
Harness, Wiring - Control to Generator 63  
Harness, Wiring - Control to Governor 65  
Harness, Wiring - Meter to Eng Monitor 65  
Harness, Wiring - Speed Control to Jack 65  
Harness, Wiring - Fuse Block to Jack 67  
Heater, Control 58  
Housing, Control 53  
Light, Indicator 55,65  
Meter, Frequency 57,67  
Meter, Tach 55,65  
Meter, Time - Running 57,67  
Radiator 7  
Rotor, Exciter 39  
Rotor, Permanent Magnet 42  
Sender, Pressure - Oil 7  
Sender, Temperature - Low Engine 5  
Sender, Temperature - Water 5,7  
Sensor, Overspeed 40  
Stator, Exciter 37  
Switch, Overspeed 41  
Switch, Pressure - Low Oil 7  
Switch, Push - Reset/Panel 55,65  
Switch, Push - Run/Stop/Remote 55,65  
Switch, Rotary - Generator Control 57,67  
Switch, Temperature - Hi Water 7  
Switch, Temperature - Pre Water 7  
Transformer, Current 53,63  
Transformer, Potential 59  
Voltmeter 55,57,65,67  
Wattmeter 61

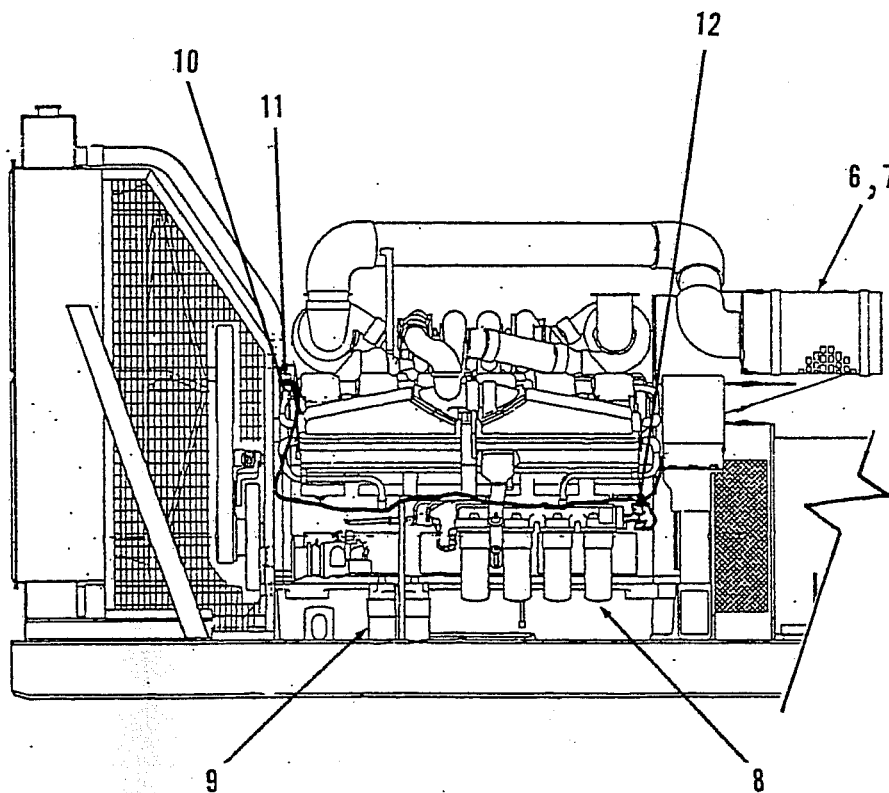
External Engine Components  
Right Side

D\_JA

D\_JB



D\_KA



# External Engine Components Right Side

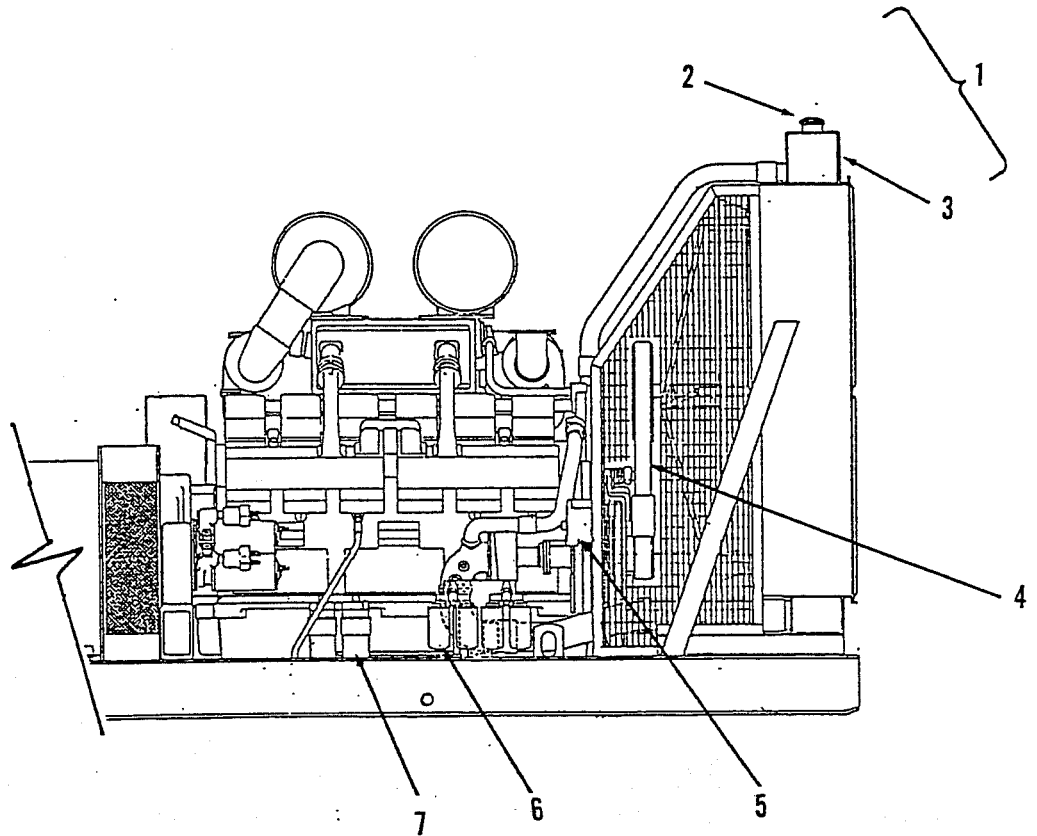
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-2226	2	Indicator, Air Restriction (Includes Fitting)	8		3	Filter, Oil [LF670]
2	140-1260	2	Fitting, Male - Hex	9	149-2232	2	Filter, Fuel [FF202]
3			Cap, Air Cleaner	10	309-0437	2	Switches & Bushings
	140-2343	4	For 6" Tube Inlet				Switch, Thermostatic - Shutdown (S2)
	140-2364	2	For 8" Tube Inlet		505-0117	2	Bushing, Reducer - Flush (1/2NPT x 3/8NPT)
	140-2352	2	For 10" Tube Inlet		309-0269	1	Switch, Temperature - Low Engine Temperature (S4)
4			Air Cleaner(Includes Element) D JA, D JB		309-0436	2	Switch, Therostatic - PreAlarm (S6)
	140-2264	2	Indoor		505-0131	2	Bushing, Reducer - Flush (3/4NPT x 3/8NPT)
	140-2363	2	Outdoor (8" Inlet Tube)				Sender & Bushing
	140-2344	2	Heavy Duty ( Dual 6" Inlet Tubes)	11	193-0375	1	Sender, Temperature (E2)
5			Element - Air Cleaner D JA, D JB		505-0021	1	Bushing, Reducer (3/4NPT x 1/2NPT)
		2	Indoor & Outdoor [AF928M]				Switches, Sender & Nipple
		2	Heavy Duty Primary [AF1605M]	12	193-0244	1	Sender, Pressure - Oil (E1)
		2	Heavy Duty Safety [AF1604]		309-0169	1	Switch, Pressure - Oil (Shutdown) (S1)
6			Air Cleaner (Include Element) D KA		309-0272	1	Switch, Pressure - Oil (PreAlarm) (SS)
		2	Indoor (Disposable) [AH1106]		505-0104	1	Nipple, Pipe (1/8NPT x 1-1/2"LG)
	140-2349	2	Heavy Duty (10" Inlet Tube)		505-0763	1	Cross, Pipe (1/8NPT)
7			Element - Air Cleaner D KA		505-0028	1	Plug, Pipe - Square Head (1/8NPT)
		2	Heavy Duty Primary [AM# CD1830610826]				
		2	Heavy Duty Safety [AM# CD1830610827]				

NOTE: [ ] Numbers in Brackets are Fleetwood Inc. Identification, except for the numbers prefixed with "AM#" which are Air Maze Corporation Identifiers.

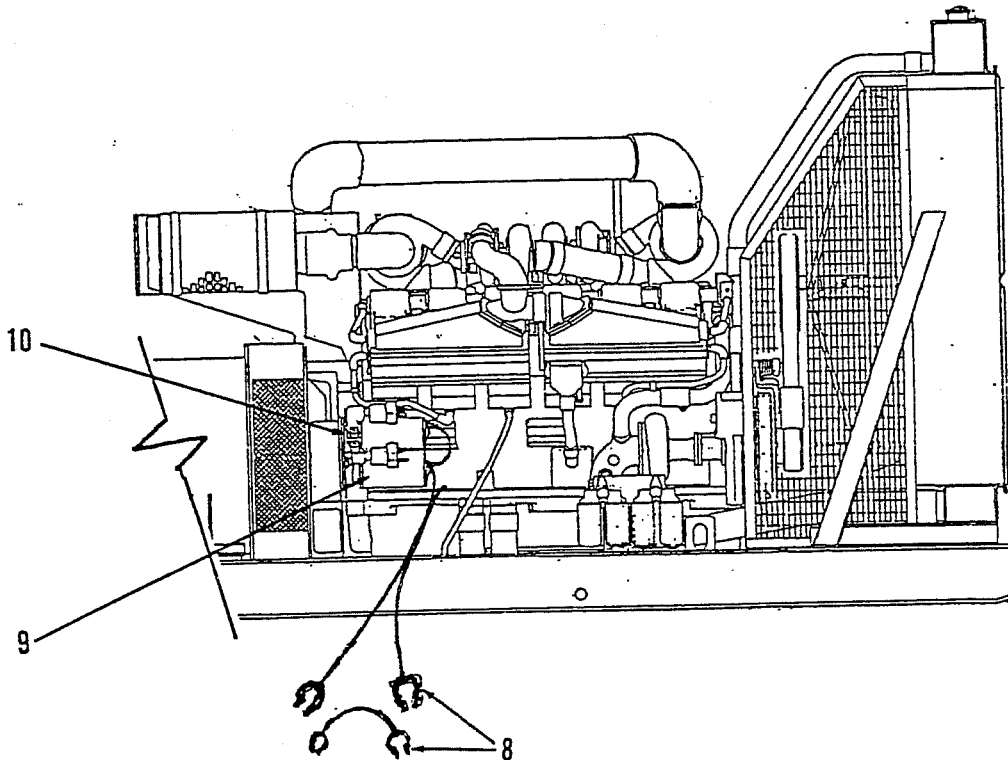
# External Engine Components Left Side

D\_JA

D\_JB



D\_KA





# External Engine Components Left Side

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	Note 1	REF	Cooling System - Radiator	4			Belt, Drive - Fan
	179-1257	1	Spec A			1	D JA, D JB (CEC#3003343)
	179-1256	1	D JA (BEARWARD # 53906-4PA)			1	D KA (CEC#3003341)
	179-1259	1	D JB (BEARWARD # 53906-4P)	5			Alternator Charging System
			D KA (BEARWARD # 53071-4P)		191-1846-01	1	Alternator (35 Amp, 24 VDC)
			SPEC B		130-3317-01	1	Pulley, Drive
	179-1306	1	D JA (BEARWARD # 53906-3PA)		511-0163	2	Belt, Drive - Alternator
	179-1307	1	D JB (BEARWARD # 54906-3P)	6	Note 2		Filter, Water - W/Corrosion
	179-1308	1	D KA (BEARWARD # 54906-5PA)				Inhibiting Chemical DCA4
2			Cap, Radiator			4	Service for 90 & up Gal
	130-0523	1	7 PSI (For 2" Fill Tube)				Cooling System [WF2072]
	130-2981	1	7 PSI (For 3" Fill Tube)			4	Pre-Charging for 90 & up Gal
	130-3395	1	10 PSI (For 2" Fill Tube)				Cooling System [WF2075]
3			Radiator (Excludes Cap)	7	122-0526	2	Filter, Oil - Bypass
			SPEC A	8			Cables & Leads
	130-3287	1	D JA		416-0473	2	Cable, Battery - Jumper
	130-3286	1	D JB		416-0444	4	Cable, Battery (44" Lg)
	130-3288	1	D KA		416-0680	3	Lead, Electrical
			SPEC B	9	191-1588	2	Starter, 24 VDC
	130-3402	1	D JA	10	307-2621-02	2	Switch, Magnetic
	130-3403		D JB				
	130-3404	1	D KA				

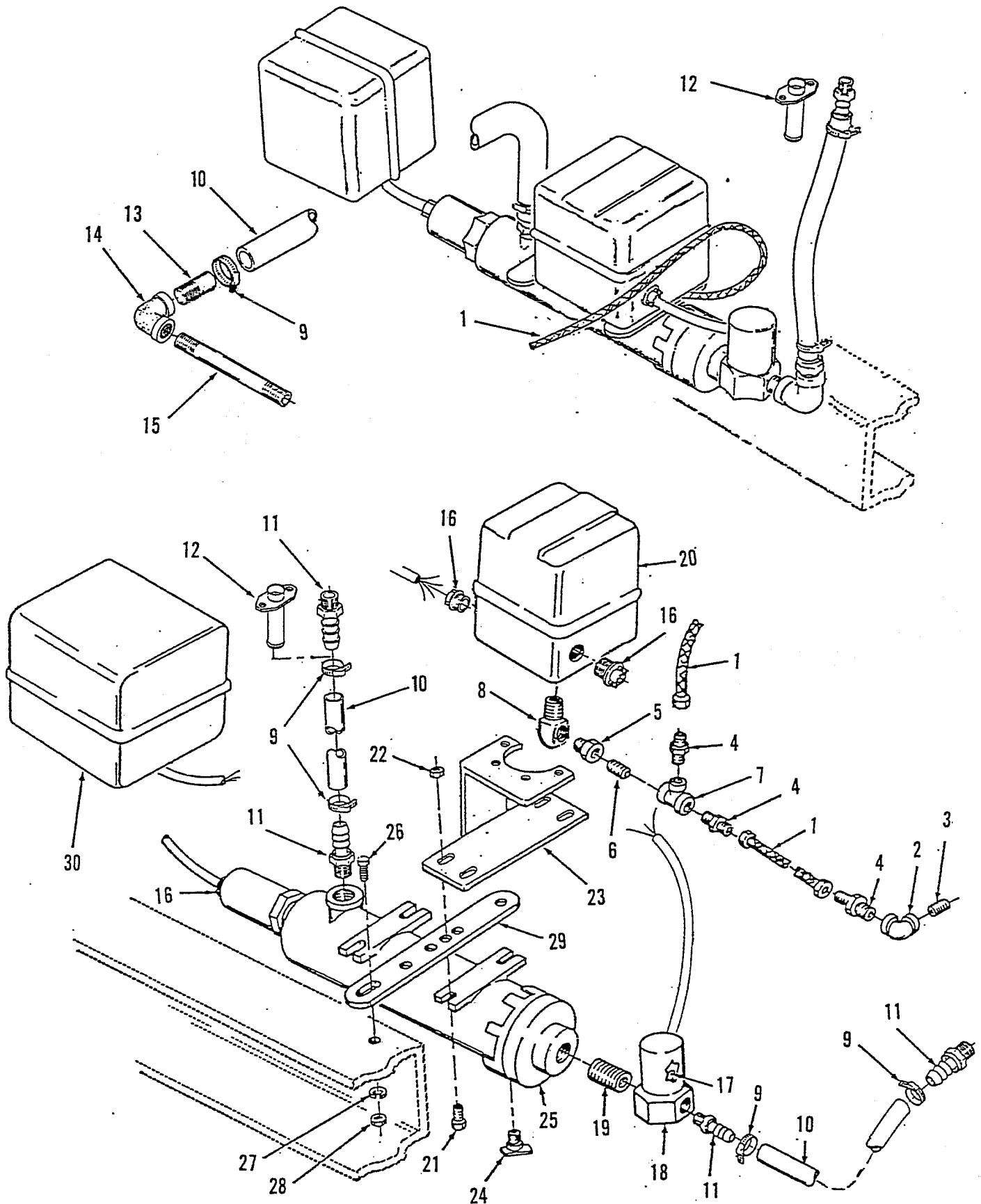
## NOTES:

- Cooling Systems Supplied by Bearward.  
BEARWARD ENGINEERING LTD  
Main Road, Far Cotton  
Northampton, England NN4 9HU

USA Office: BEARWARD RADIATOR  
Route 22 Box 187  
Fleetwood, PA 19522  
215-944-6017

- Replacement cartridges recommend and should be used in lieu of the Original Engine Factory Installed Item which contains a Pre-Charge amount of DCA or DCA4 Chemical. Replacement with Pre-charge Cartridge may overload the Cooling System and cause problems or failure of the Set.
- (CEC#) Numbers in Parens are Cummins Engine Company Identification.
- [ ] Numbers in Brackets are Fleetwood Inc. Identification.

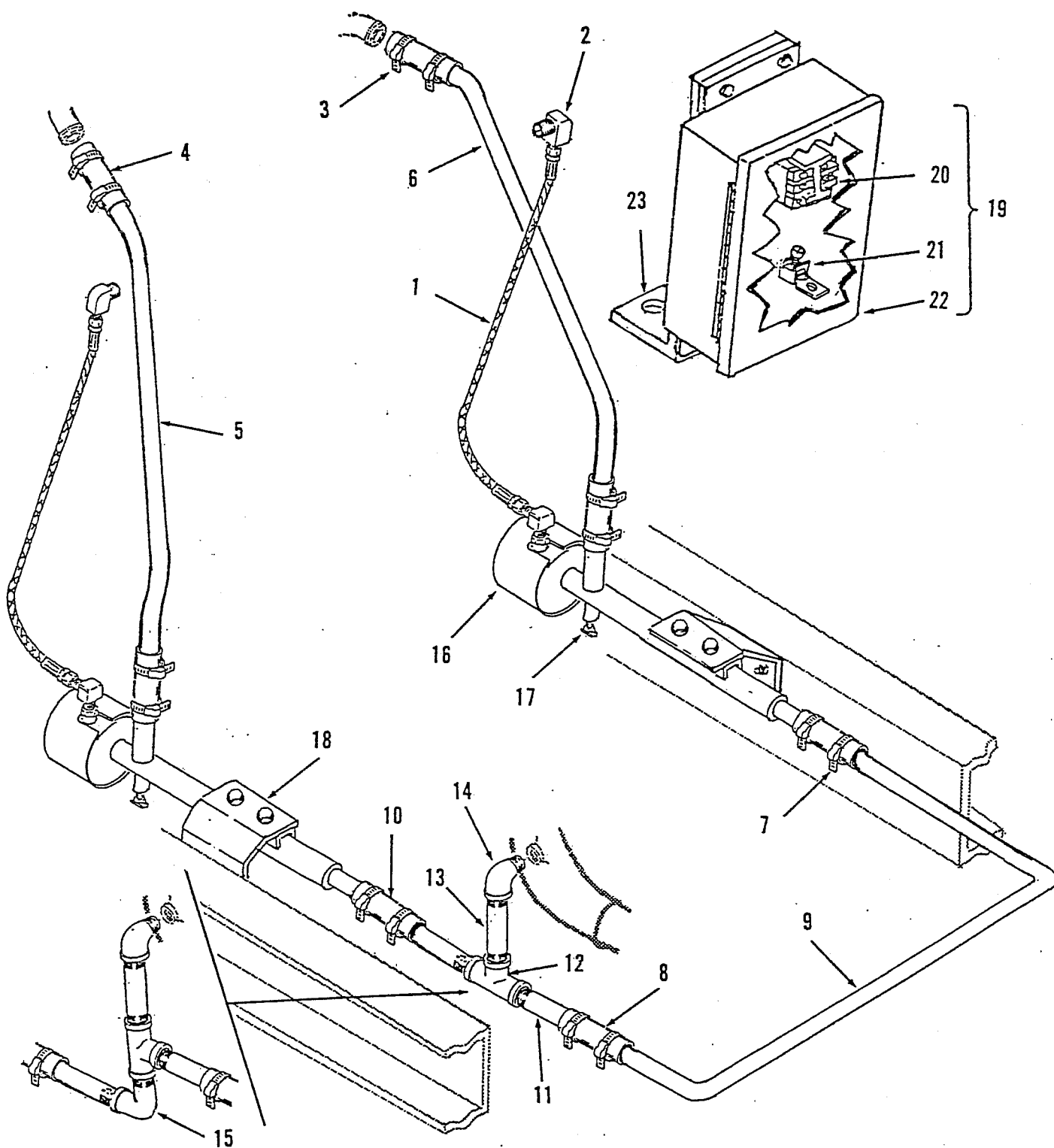
# Dual Engine Coolant Heaters (Kim Type)



# **Dual Engine Coolant Heaters (Kim Type)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0199	2	Line, Fuel - Flexible	19	505-0004	2	Nipple, Pipe - Close
2	505-0037	1	Elbow - 90 Degree (1/8 NPT)				(3/4 NPT x 1-1/2")
3	505-0104	1	Nipple, Pipe - Close	20	309-0271	2	Switch, Pressure - Oil
			(1/8 NPT x 1-1/2")				Attaching Parts for Switch
4	502-0193	4	Adapter, Hex - Pipe to Line		812-0079	8	Screw, Machine - Round Head
5	505-0007	2	Bushing, Reducer - Hex				(#8-32 x 1/2")
			(1/4 NPT x 1/8 NPT)		854-0007	8	Washer, Lock - ET (#8)
6	505-0098	1	Nipple, Pipe - Close	21	800-0008	4	Screw, Cap - Hex Head
			(1/8 NPT x 3/4")				(1/4-20 x 1-1/4")
7	505-0059	1	Tee, Pipe (1/8 NPT)	22	870-0212	4	Nut, Self-locking - Hex (1/4-20)
8	502-0054	2	Elbow, Pipe - Street,	23	333-0224	2	Bracket, Support - Pressure Swit
			90 Degree (1/8 NPT)	24	504-0003	2	Cock, Drain
9	503-0398	8	Clamp, Hose	25			Heater, Electrical - Coolant
10	503-0249	AR	Hose, Rubber - Bulk (1"ID x		333-0143	2	4000 Watt, 208 VAC - 1 Phase
			1-3/8"OD) [Sold in Multi Foot		333-0164	2	4000 Watt, 208 VAC - 3 Phase
			lengths, order as required]		333-0138	2	4000 Watt, 240 VAC - 1 Phase
11	505-0759	7	Adapter, Hose to Pipe		333-0190	2	4000 Watt, 240 VAC - 3 Phase
12	130-3200	2	Adapter, Hose with Flange		333-0150	2	4000 Watt, 277 VAC - 1 Phase
			(Used on some applications)		333-0183	2	4000 Watt, 380 VAC - 1 Phase
13	505-0324	1	Nipple, Pipe - Half		333-0174	2	4000 Watt, 380 VAC - 3 Phase
			(3/4 NPT x 2")		333-0161	2	4000 Watt, 480 VAC - 1 Phase
14	505-0132	1	Elbow, Pipe - Street,		333-0144	2	4000 Watt, 480 VAC - 3 Phase
			90 Degree (3/4 NPT)	26	821-0030	8	Screw, Self-locking - Hex Head
15	505-0438	1	Nipple, Pipe (3/4 NPT x 8")				(5/16-18 x 1-1/4")
16	331-0027	12	Clamp, Cable	27	850-0045	8	Washer, Lock - Spring (5/16")
17			Terminals	28	862-0015	8	Nut, Hex (5/16-18)
	323-0957	4	Nut, Wire	29	130-1191	4	Bracket, Mounting
	332-0014	8	Lug, Terminusl - Ring (#10)	30			Contactor
	332-0149	8	Lug, Terminal - Ring (#8)		307-1460	2	230 VAC, 3 Pole
18			Switch, Thermostatic		307-1164	2	460 VAC, 3 Pole
	309-0490	2	100° - 120° Fahrenheit				
	309-0253	2	120° - 140° Fahrenheit				

# Dual Engine Coolant Heaters (Watlow Type)



# Dual Engine Coolant Heaters (Watlow Type)

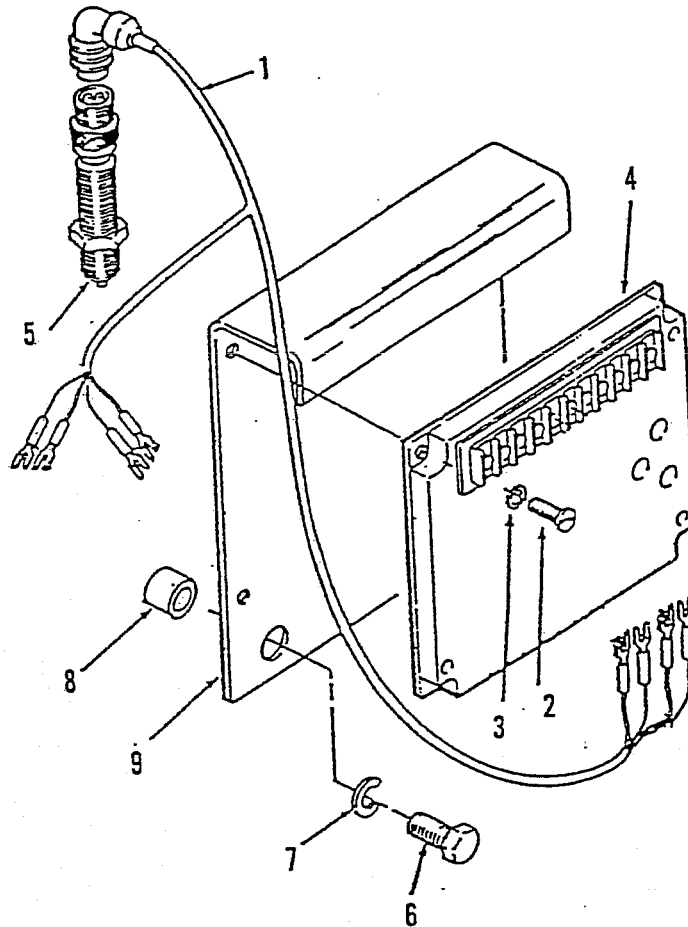
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1		REF	Hose Assembly - Oil Pressure (Select as required)				Without Pressure Switch
	501-0537-03	2	32" Lg		333-0413-09	2	120V, 4000 Watt
	501-0537-07	2	50" Lg		333-0413-08	2	208V, 4000 Watt
	501-0537-26	2	60" Lg		333-0413-07	2	240V, 4000 Watt
					333-0413-10	2	480V, 4000 Watt
2	502-1043-01	4	Elbow, Pipe - Male, 90 DEG				Attaching Parts for Heater
3	503-1603	8	Clamp, Hose		800-0222	4	Screw, Cap - Hex Head (1/4-20 x 3/4")
4	503-1602	4	Hose, Rubber		850-0101	4	Washer, Lock - Spring (1/4")
5	130-3339	1	Tube, Water				Isolator, Vibration
6	130-3340	1	Tube, Water		402-0608	4	Isolator, Vibration
7	503-1603	6	Clamp, Hose		402-0609	4	Cock, Drain (1/4 NPT)
8		2	Hose, Rubber (CEC# 200517)	17	504-0003	2	Bracket, Mounting - Heater
9		1	Tube, Water (CEC# 3056251)	18	130-3189	2	Attaching Parts for Bracket
10		1	Hose, Rubber (CEC# 3009805)				Screw, Cap - Hex Head (3/8-16 x 1-1/4")
11		2	Nipple, Pipe - Half (CEC# 153409)		800-0210	8	Washer, Lock - Spring (3/8")
12		1	Tee, Pipe (CEC# 3056256)		850-0103	8	Nut, Hex - Brass (3/8-16)
13		1	Nipple, Pipe (CEC# 5912C)				Switch, Control - Heater (Includes Contactor, Ground Lug and Box)
14		1	Elbow, Pipe - Street - 90" (CEC# 5906C)		871-0028	8	Contactor (50 AMP, 3 Pole, SPST, 120 VAC Coil) [Wat# 198-0-20-3]
15		1	Elbow, Pipe - Street - 90" (CEC# 3056257) (Not used all Installations)	19		2	Lug, Ground [Wat# 191-16-6-1] Box, Electrical [Wat# 303-62-29-29]
16		REF	Heater, Electrical - Coolant (Includes Thermostat, Drain Cock, Mounting Nuts and may or may not include pressure switch) With Pressure Switch	20		1	Bracket, Mounting - Box
	333-0389-06	2	120V, 4000 Watt	21		1	Attaching Parts for Brackets
		2	208V, 4000 Watt	22		1	Screw, Cap - Hex Head (
	333-0389-02	2	240V, 4000 Watt	23		2	1/4-20 x 3/4")
	333-0389-04	2	480V, 4000 Watt		800-0222	8	Washer, Lock - Spring (1/4")
					850-0101	8	Nut, Hex (1/4-20)
					862-0031	8	

## NOTES:

- (CEC#) Numbers in Parens are Cummins Engine Company Identification.
- [WAT#] Numbers in Brackets are Watlow Industries Inc. Identification; Manufacturers of Heaters and Controls.

USA OFFICE  
Watlow Industries Inc.  
Div. of Watlow Electric Co.  
Hannibal, Mo.

# Electric Governor



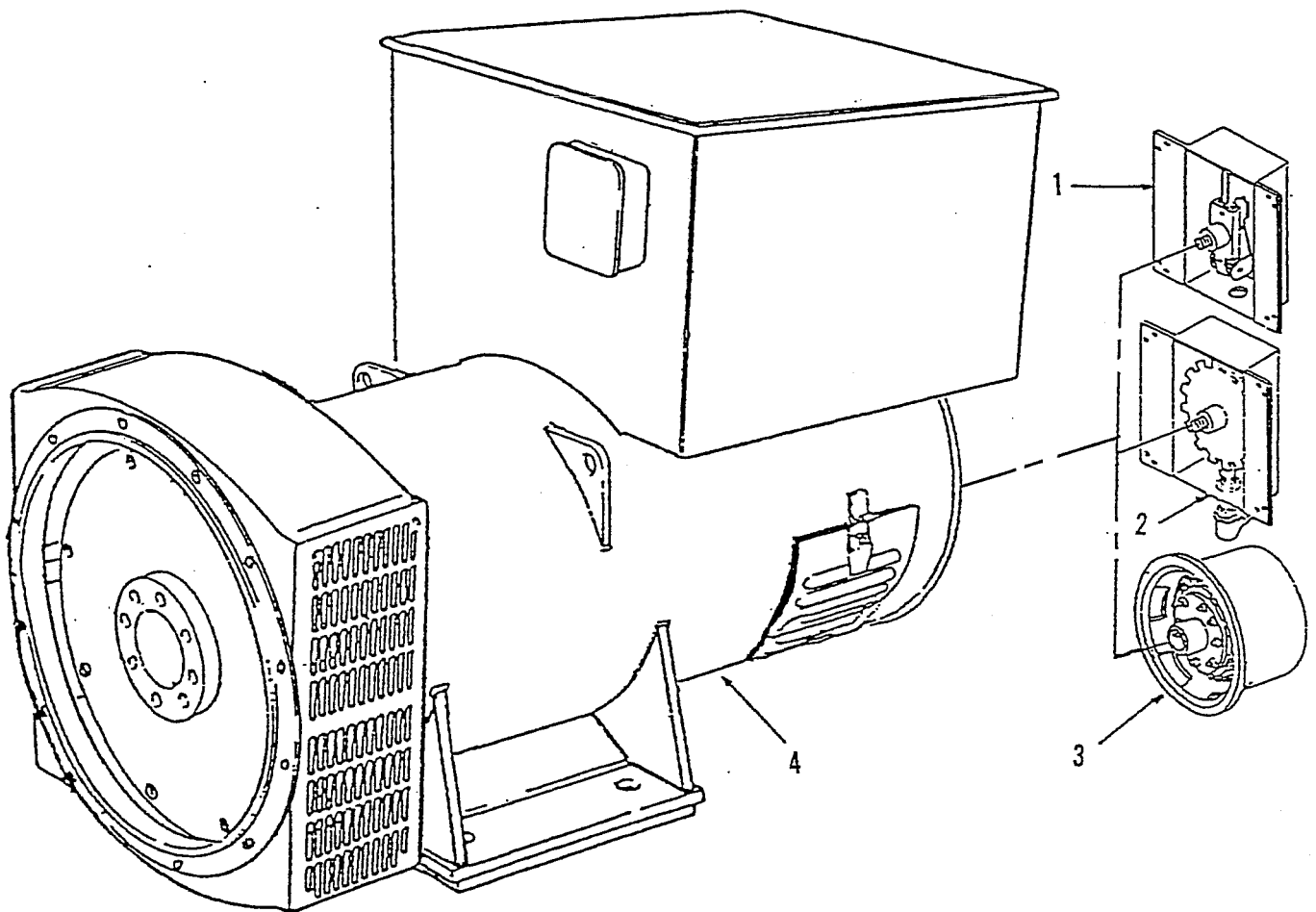
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-1777	1	Harness, Wiring	5	151-0411	1	Pickup, Magnetic
2	813-0103	4	Screw, Machine - Round Head (#10-32 x 3/4")	6	800-0151	2	Screw, Cap - Hex Head (3/4-10 x 1")
3	870-0131	4	Nut, Self-locking, Hex (#10-32)	7	850-0079	2	Washer, Lock - Spring (3/4")
4	151-0682	1	Controller, Governor	8	370-4040	2	Spacer, Sleeve
				9	150-2007	1	Bracket, Mounting

## TABLE OF CONTENTS

### GENERATOR SECTION

GENERATOR - Spec A .....	33
GENERATOR - Spec B .....	35
STATOR SECTION - SAE 0 / SAE 18, Frame 6 .....	37
ROTOR SECTION - SAE 0 / SAE 18, Frame 6 .....	39
OVERSPEED SENSOR .....	40
OVERSPEED SWITCH .....	41
PERMANENT MAGNET EXCITER .....	42

Generator  
Spec A



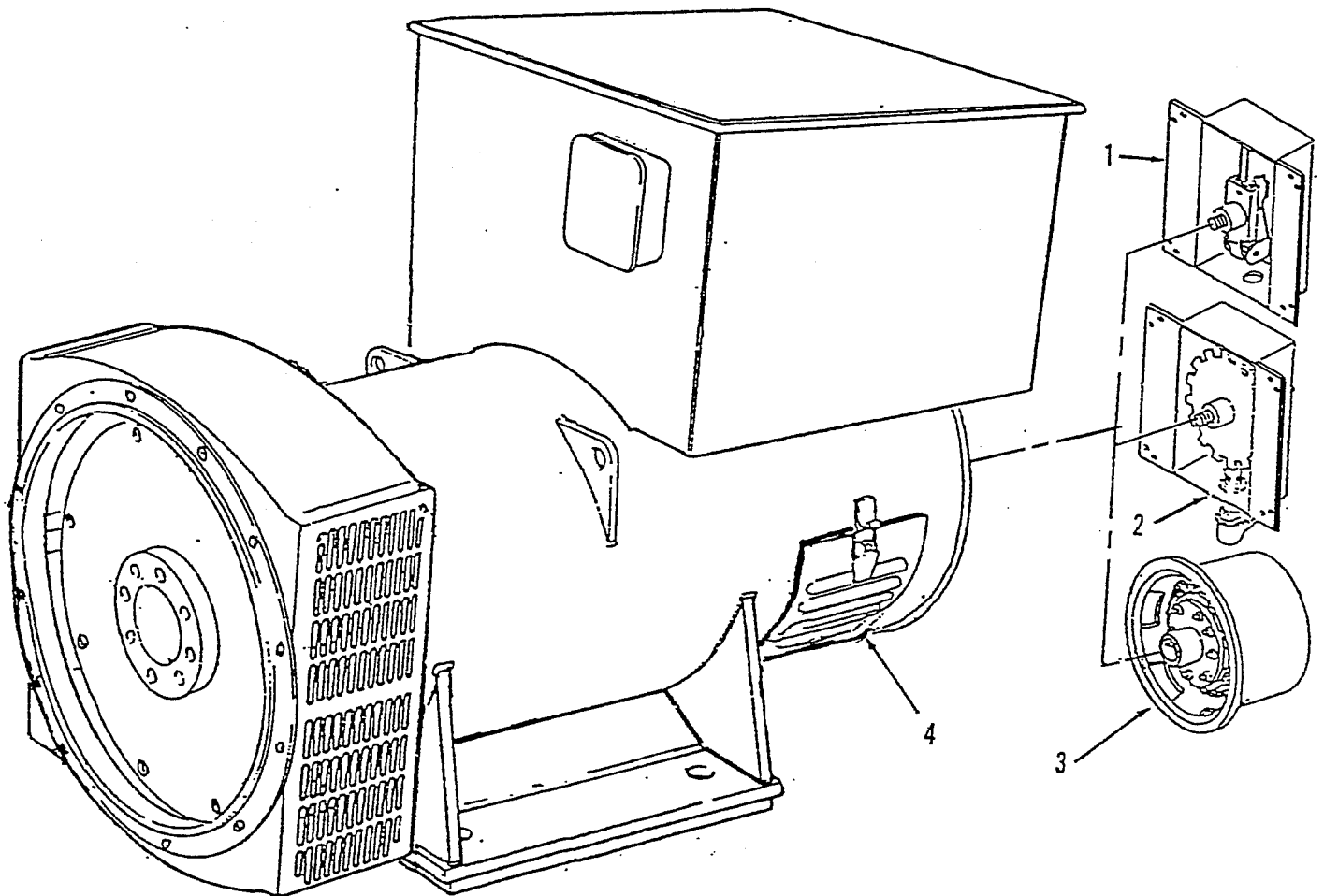


# Generator Spec A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1		1	Module, Overspeed Switch (See Separate Page for Parts)	4	Note 1		Generator - Frame 6 (See Separate pages for Parts)
	821-2045	4	Attaching Parts Screw, Self-locking - Hex Hd (M8 x 1.25 x 16mm)		800-0578	4	Attaching Parts Generator to Chassis Screw, Cap - Hex Head (1 1/4-7 x 3-1/2")
2		1	Module, Overspeed Sensor (See Separate Page for Parts)		850-0092	4	Washer, Lock - Spring (1-1/4")
	821-2045	4	Attaching Parts Screw, Self-locking - Hex Hd (M8 x 1.25 x 16mm)		526-0093	4	Washer, Flat (1-1/4")
					862-0017	4	Nut, Hex (1 1/4-7)
3		1	Module, Perm. Magnet Exciter (See Separate Page for Parts)		800-0576	16	Adapter to Flywheel Housing Screw, Cap - Hex Head, Gr 8 (1/2-13 x 3/4")
	249-0298	4	Attaching Parts Screw, Cap - Hex Head (M8 x 16mm)		850-0060	16	Washer, Lock - Spring (1/2")
	249-0218	4	Washer, Lock (M8)		800-0530	6	Drive Disc to Flywheel
	249-0315	4	Clamp, Retaining				Screw, Cap - Hex Head, Gr 8 (5/8-11 x 1-1/4")

Note 1: For Replacement Generator please supply the complete Gen Set nameplate and Generator nameplate data.

Generator  
Begin Spec B

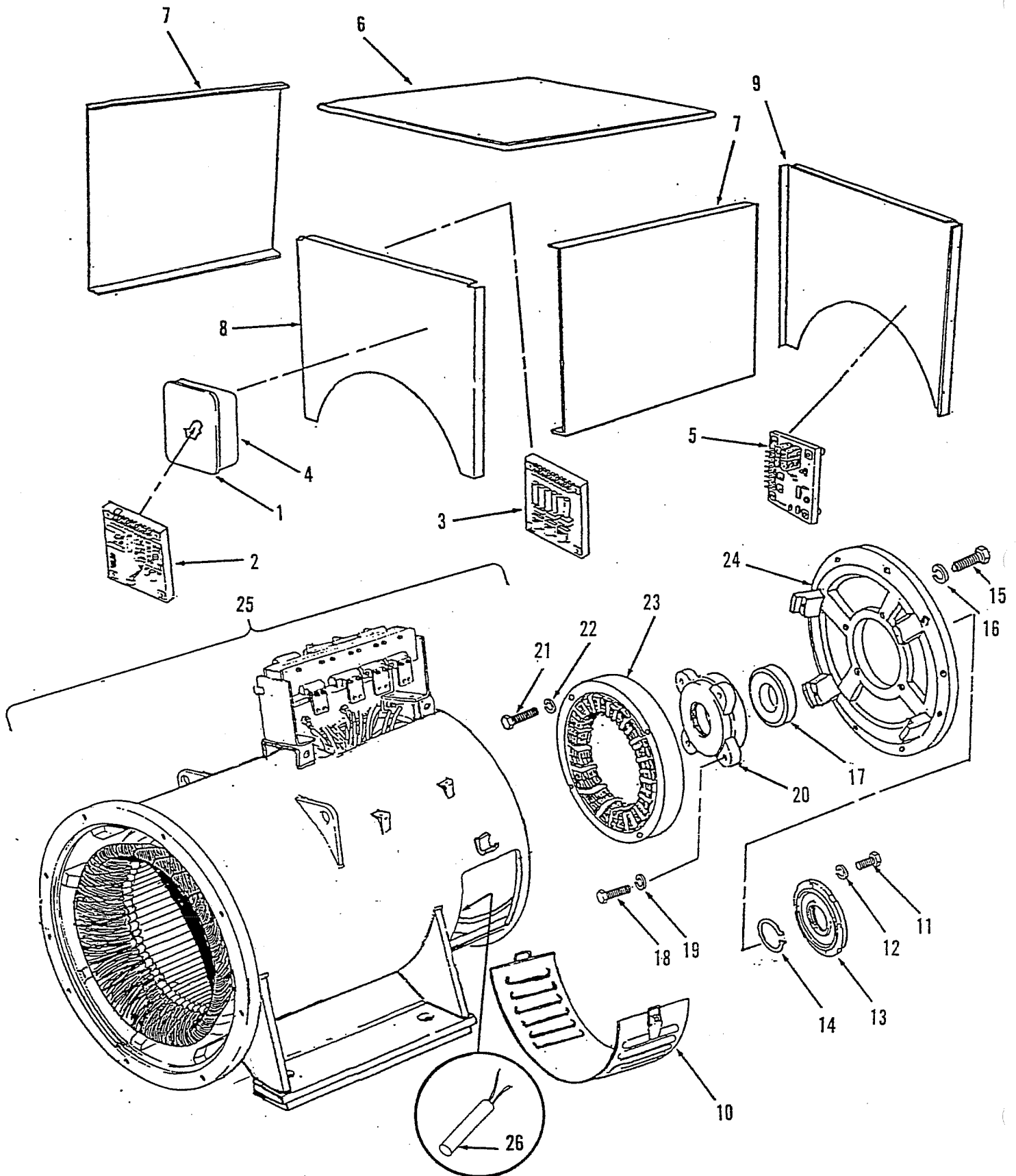


**Generator  
Begin Spec B**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1		1	Module, Overspeed Switch (See Separate Page for Parts)	4	Note 1		Generator - Frame 6 (See Separate pages for Parts)
	821-2045	4	Attaching Parts Screw, Self-locking - Hex Hd (M8 x 1.25 x 16mm)				Attaching Parts Generator to Chassis Screw, Cap - Hex Head (1 1/4-7 x 4")
2		1	Module, Overspeed Sensor (See Separate Page for Parts)		800-0273	4	Washer, Lock - Spring (1-1/4")
	821-2045	4	Attaching Parts Screw, Self-locking - Hex Hd (M8 x 1.25 x 16mm)		850-0092	4	Washer, Flat (1-1/4")
3		1	Module, Perm. Magnet Exciter (See Separate Page for Parts)		526-0093	4	Nut, Hex (1 1/4-7)
	249-0298	4	Attaching Parts Screw, Cap - Hex Head (M8 x 16mm)		862-0017	4	Adapter to Flywheel Housing Screw, Cap - Hex Head, Gr 8 (1/2-13 x 3/4")
	249-0218	4	Washer, Lock (M8)		800-0576	16	Washer, Lock - Spring (1/2")
	249-0315	4	Clamp, Retaining		850-0060	16	Drive Disc to Flywheel
					800-0530	6	Screw, Cap - Hex Head, Gr 8 (5/8-11 x 1-1/4")

**Note 1:** For Replacement Generator please supply the complete Gen Set nameplate and Generator nameplate data.

Generator  
Stator Section  
Frame 6

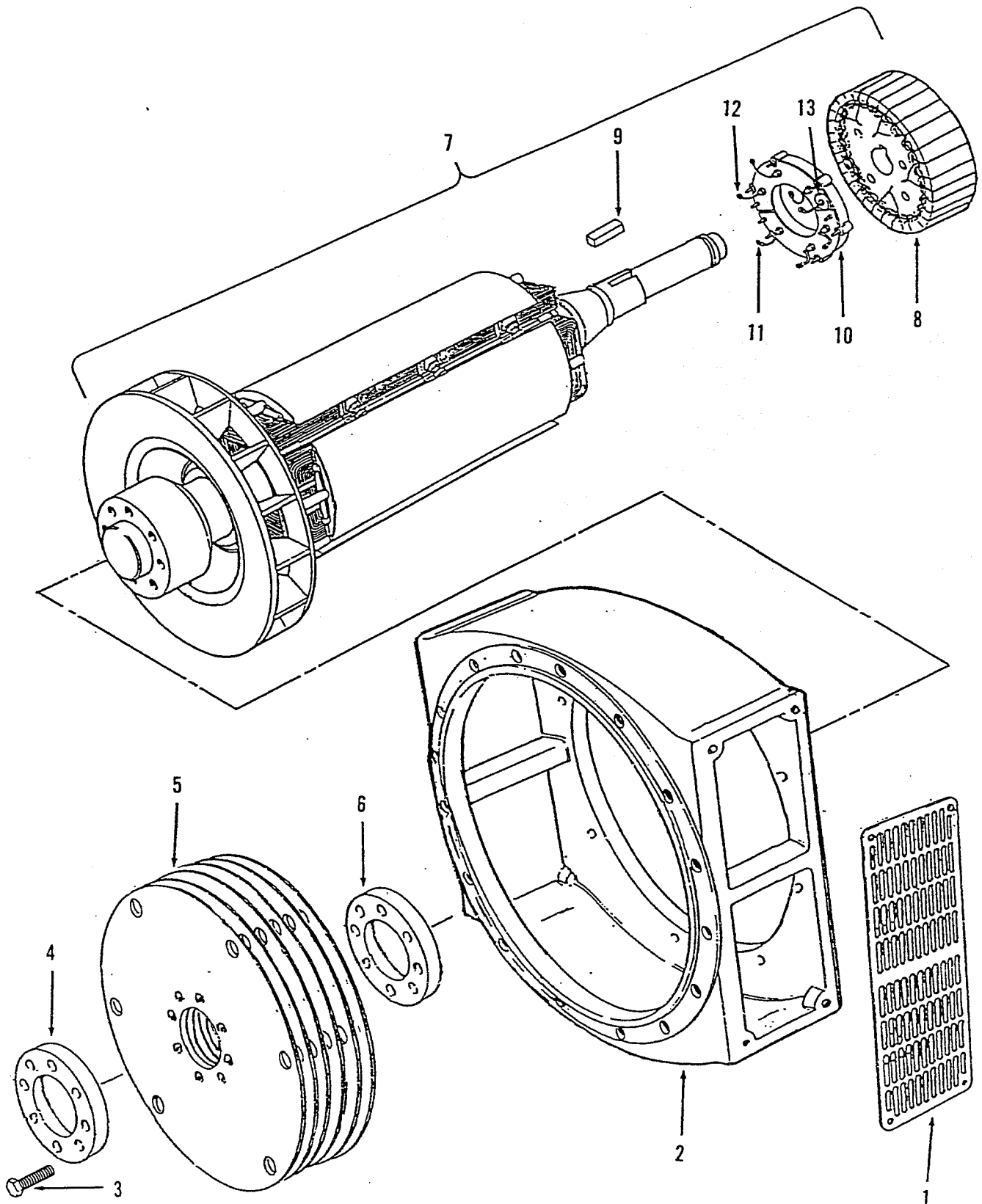


**Generator  
Stator Section  
Frame 6**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	249-0631	1	Lid	11	249-0243	4	Screw, Cap - Hex Head (M10 x 30mm)
	249-0304	4	Attaching Parts Screw, Captive	12	249-0202	4	Washer, Lock - Spring (M10)
2			Regulator, Voltage	13	249-0510	1	Cap, Bearing - Outer
	305-0770	1	Standard 1 Phase u/w PMG	14	249-0447	1	Circlip
	305-0778	1	3 Phase (Used with PMG Exciter & 3 Phase Sensing Module)	15	249-0204	8	Screw, Cap - Hex Head (M12 x 40mm)
	305-0803	1	Manual	16	249-0205	8	Washer, Lock - Spring (M12)
			Attaching Parts	17	249-0448	1	Bearing, Ball
	249-0398	4	Pillar, Threaded	18	249-0245	4	Screw, Cap - Hex Head (M10 x 50mm)
3	249-0564	1	Module, 3 Phase Sensing	19	249-0202	4	Washer, Lock - Spring (M10)
			Attaching Parts	20	249-0509	1	Cap, Bearing - Inner
	249-0398	4	Pillar, Threaded	21	249-0445	6	Screw, Cap - Hex Head (M6 x 85mm)
4	249-0395	1	Box	22	249-0212	6	Washer, Lock - Spring (M6)
5	300-3209-02	1	Module, Frequency Detection	23	249-0470	1	Stator, Exciter
			Attaching Parts	24	249-0527	1	Bracket, End
	249-0295	4	Screw, Cap - Hex Head (M5 x 35mm)	25	NFS	1	Stator, Generator (Includes Terminal Studs and Links)
	249-0288	4	Washer, Plastic (M5)				Attaching Parts Stator to Adapter
	249-0287	4	Nut, Hex - Nylon (M5)		249-0204	8	Screw, Cap - Hex Head (M12 x 40mm)
6	NFS	1	Lid				Washer, Lock - Spring (M12)
7	NFS	2	Panel, Side		249-0205	8	Heater, Electrical - Replacement
8	NFS	1	Panel, Front	26	249-0621	1	70 Watt, 120 VAC
9	NFS	1	Panel, Rear		249-0622	1	70 Watt, 240 VAC
10	249-0513	2	Grille, Inlet - Air				

NFS - Not For Sale

Generator  
Rotor Section  
SAE 0/ SAE 18  
Frame 6

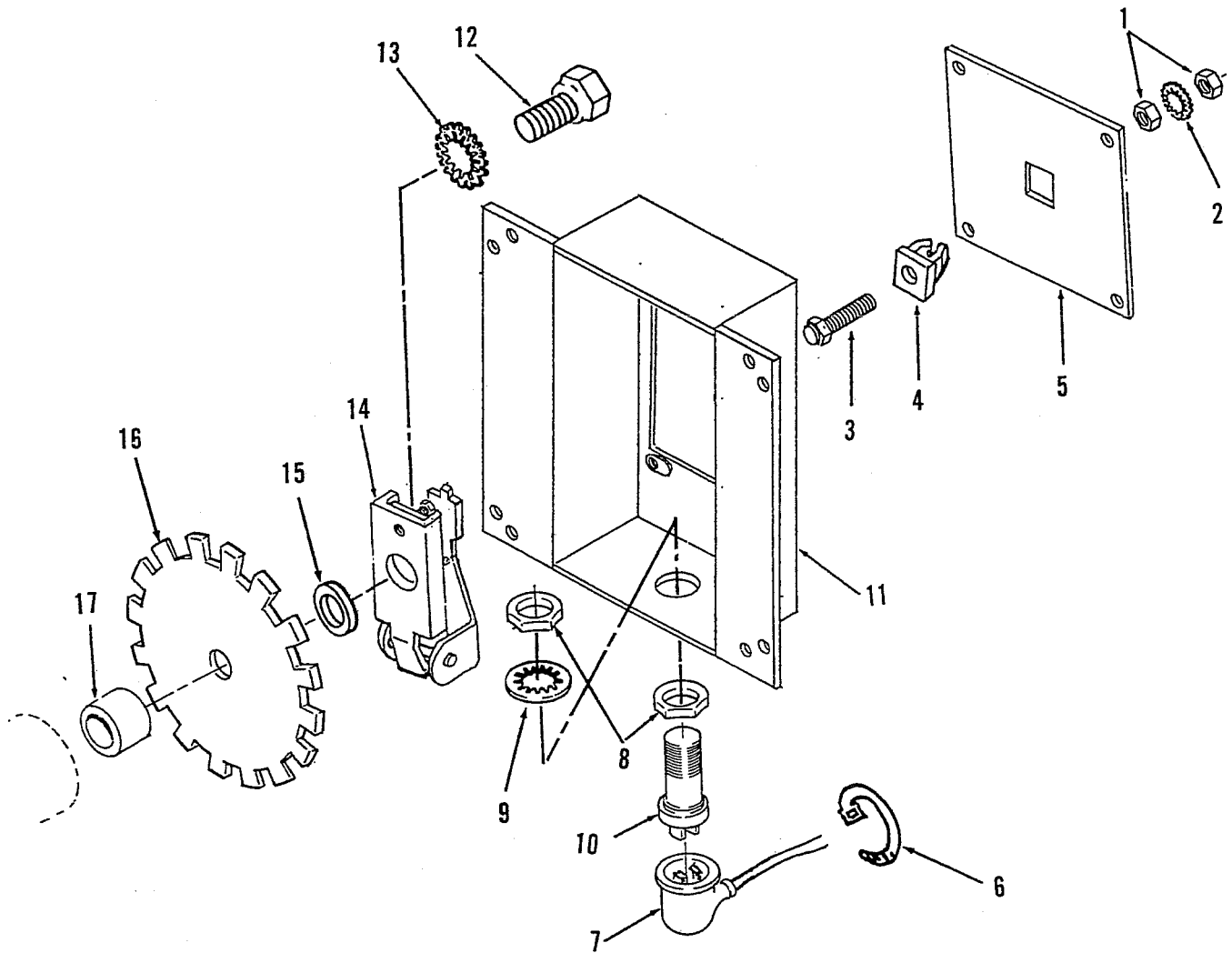


**Generator  
Rotor Section  
SAE 0/ SAE 18  
Frame 6**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	249-0534	2	Screen, Air - Adapter	7	NFS	1	Rotor, Generator (Includes
	249-0294	12	Attaching Parts Screw, Cap - Hex Head (M5 x 12mm)				Exciter, Key, and Rectifier
	249-0307	12	Washer, Lock - Spring (M5)	8	249-0512	1	Assemblies)
	249-0365	12	Washer, Flat (M5)	9	249-0271	1	Rotor, Exciter (Does Not
2	249-0533	1	Adapter, Generator SAE 0	10	249-0237	1	Include Rectifier Assy)
3	249-0437	8	Screw, Cap - Hex Head (M20 x 75mm)				Key
4	249-0230	1	Plate, Pressure	11	249-0239	3	Rectifier Assy
5	249-0276	6	Disc, Drive SAE 18	12	249-0238	3	(Includes Diodes)
6	249-0277	1	Spacer	13	249-0240	1	Diode, Forward Polarity
							Diode, Reverse Polarity
							Varister

NFS - Not For Sale

# **Generator Overspeed Sensor**

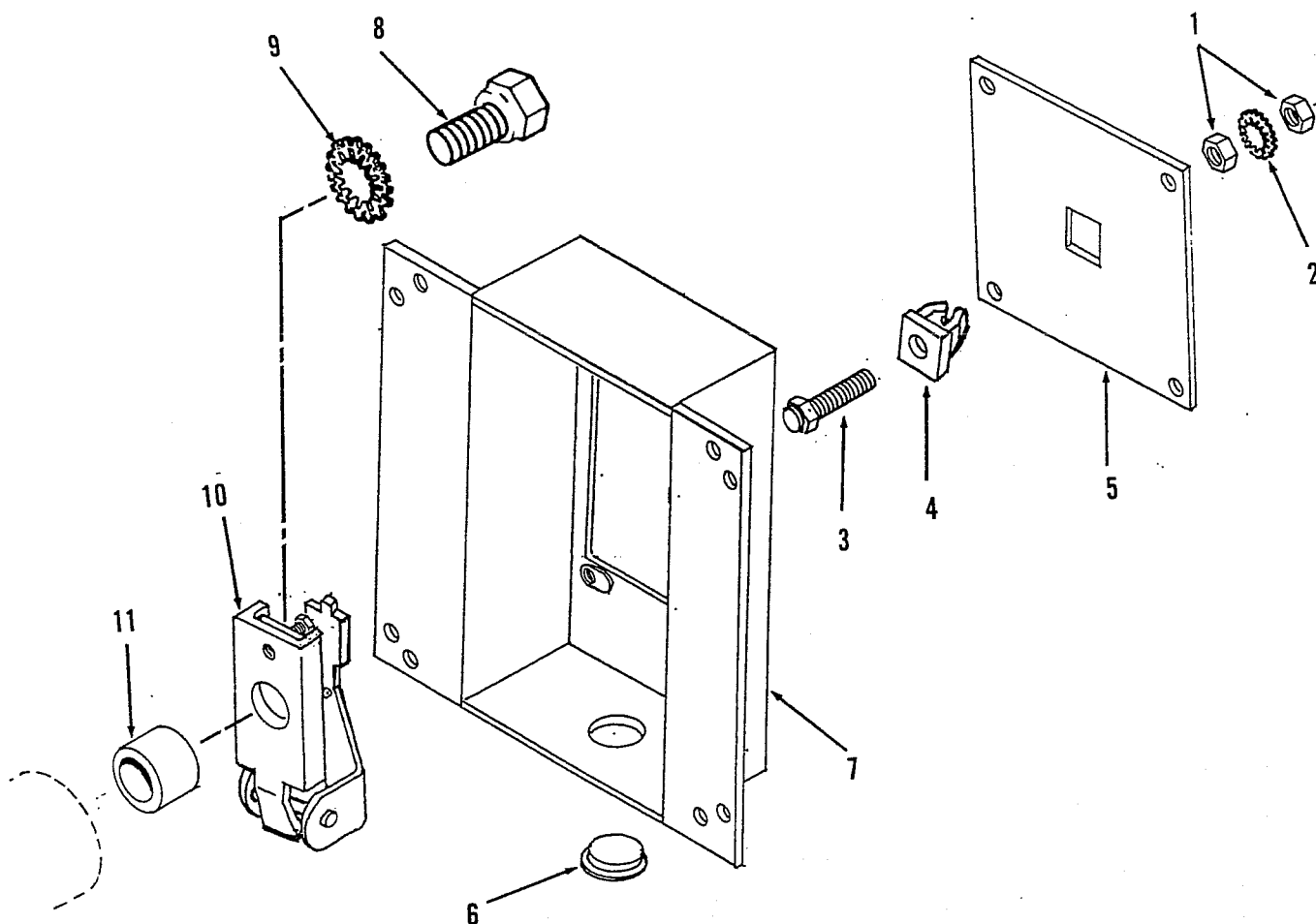


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	862-0001	2	Nut, Hex (1/4-20)
2	853-0013	1	Washer, Lock - EIT (1/4")
3	150-0723	1	Point, Overspeed
4	870-0250	1	Nut, Insulated
5	150-2206	1	Plate, Mounting
	821-0005	4	Screw, Self-locking - Hex (#10-32 x 1/2")
6	332-1445	5	Tie, Cable
7	338-2189-02	1	Harness, Wiring
8	868-0011	2	Nut, Jam - Hex (3/4-16)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	854-0031	1	Washer, Lock - IT (3/4")
10	150-1406	1	Sensor, Speed
11	150-2207	1	Cover, Overspeed Switch
12	718-1058	1	Screw, Cap - Hex Head (M10 x 1.5 x 45mm)
13	856-0010	1	Washer, Lock - EIT (3/8")
14	150-0956	1	Switch, Overspeed
15	370-4031	1	Spacer, Sleeve
16	150-2204	1	Wheel - Speed Sensor
17	370-4032	1	Spacer, Sleeve



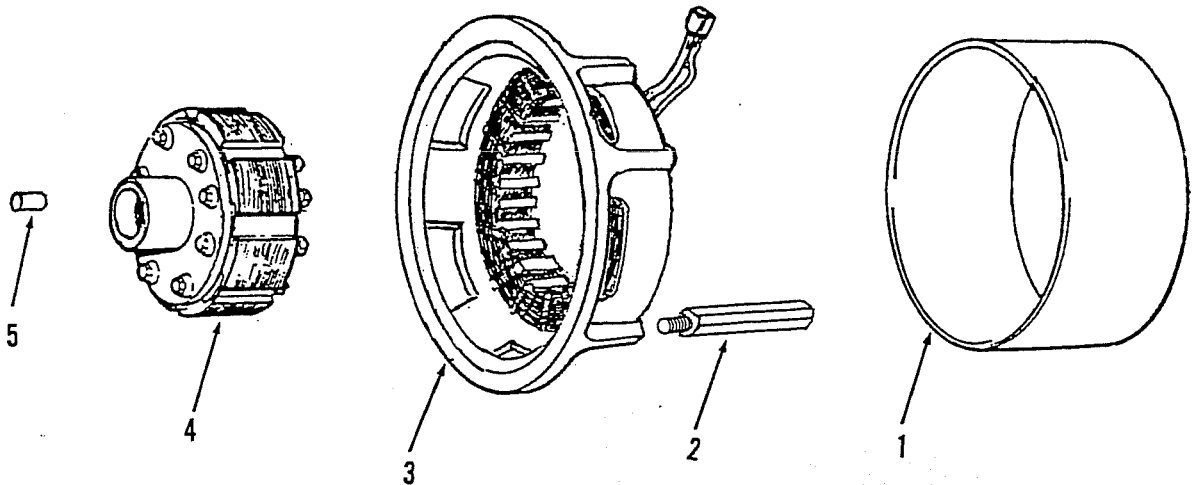
# Generator Overspeed Switch



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	862-0001	2	Nut, Hex (1/4-20)
2	853-0013	1	Washer, Lock - EIT (1/4")
3	150-0723	1	Point, Overspeed
4	870-0250	1	Nut, Insulated
5	150-2206	1	Plate, Mounting
	821-0005	4	Screw, Self-locking - Hex (#10-32 x 1/2")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	517-0136	1	Plug, Plastic
7	150-2207	1	Cover, Overspeed Switch
8	718-1058	1	Screw, Cap - Hex Head (M10 x 1.5 x 45mm)
9	856-0010	1	Washer, Lock - EIT (3/8")
10	150-0956	1	Switch, Overspeed
11	370-4032	1	Spacer, Sleeve

# Generator Permanent Magnet Exciter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	249-0497	1	Cover
	249-0294	3	Attaching Parts for Cover Screw, Cap - Hex Head (M5 x 12mm)
	249-0307	3	Washer, Lock (M5)
2	249-0496	3	Pillar, Threaded
3	249-0426	1	Stator, Exciter with Frame

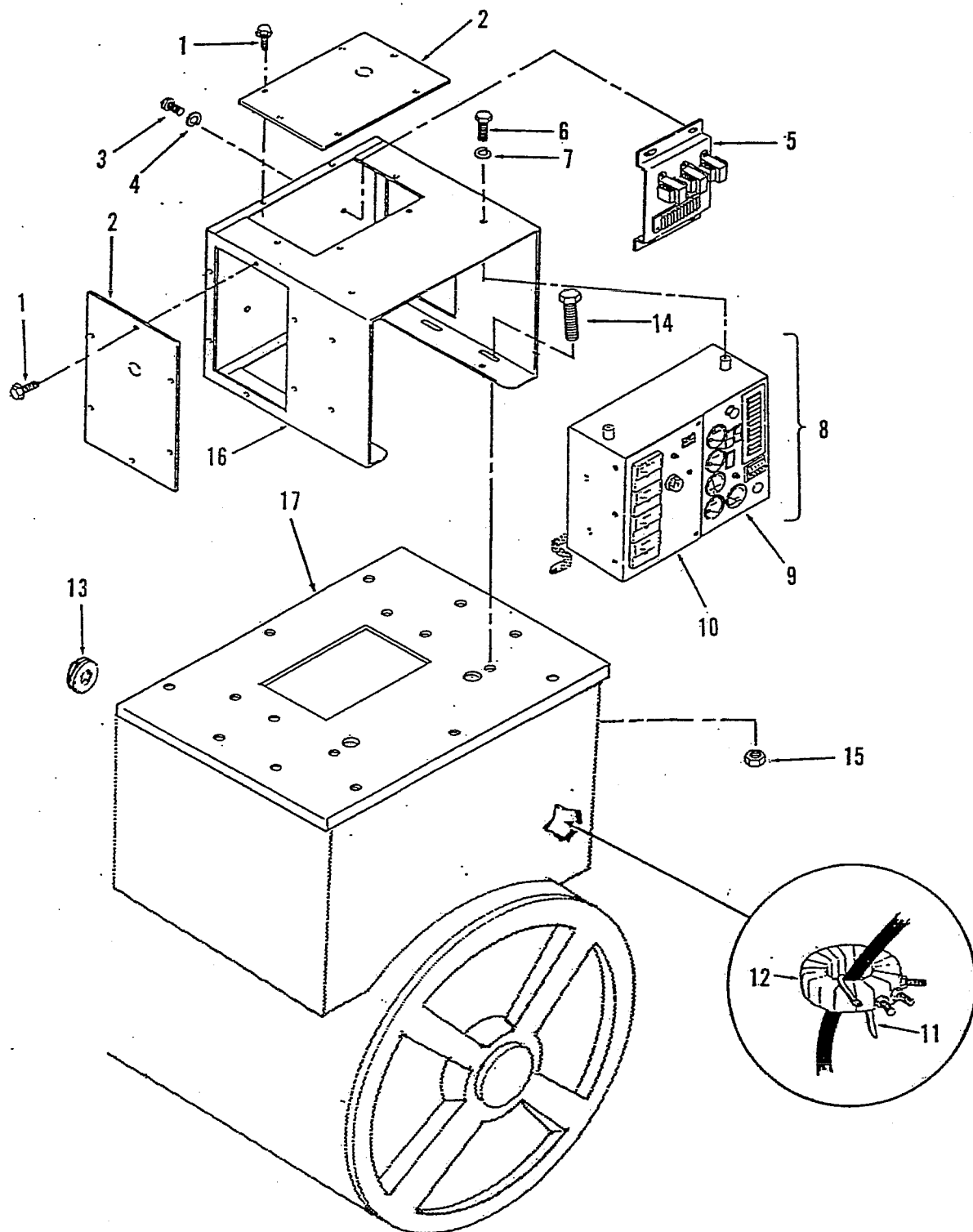
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
4			Rotor, Exciter
	249-0427	1	Frame 2, 3, 4 Generators
	249-0644	1	Frame 5, 6, 7 Generators
			Attaching Parts for Rotor
			Bolt - Select as Required
	249-0399	1	Frame 2, 3, 4 Generators
	249-0495	1	Frame 5, 6, 7 Generators
	249-0202	1	Washer, Lock (M10)
5	249-0313	1	Pin, Dowel

## TABLE OF CONTENTS

### SET CONTROLS

GENERATOR SET CONTROL (WITH HOUSING ENCLOSURE) .....	53
ENGINE CONTROL COMPONENTS (SETS WITH HOUSING ENCLOSURE) ....	55
GENERATOR CONTROL COMPONENTS (SETS WITH HOUSING ENCLOSURE)..	57
CONTROL HEATER (SETS WITH HOUSING ENCLOSURE) .....	58
POTENTIAL TRANSFORMER (SETS WITH HOUSING ENCLOSURE .....	59
WATTMETER (SETS WITH HOUSING ENCLOSURE) .....	61
GENERATOR SET CONTROL (WITHOUT HOUSING ENCLOSURE).....	63
ENGINE CONTROL COMPONENTS (SETS WITHOUT HOUSING ENCLOSURE)..	65
GENERATOR CONTROL COMPONENTS(SETS WITHOUT HOUSING ENCLOSURE)	67

# Generator Set Control (With Housing Enclosure)

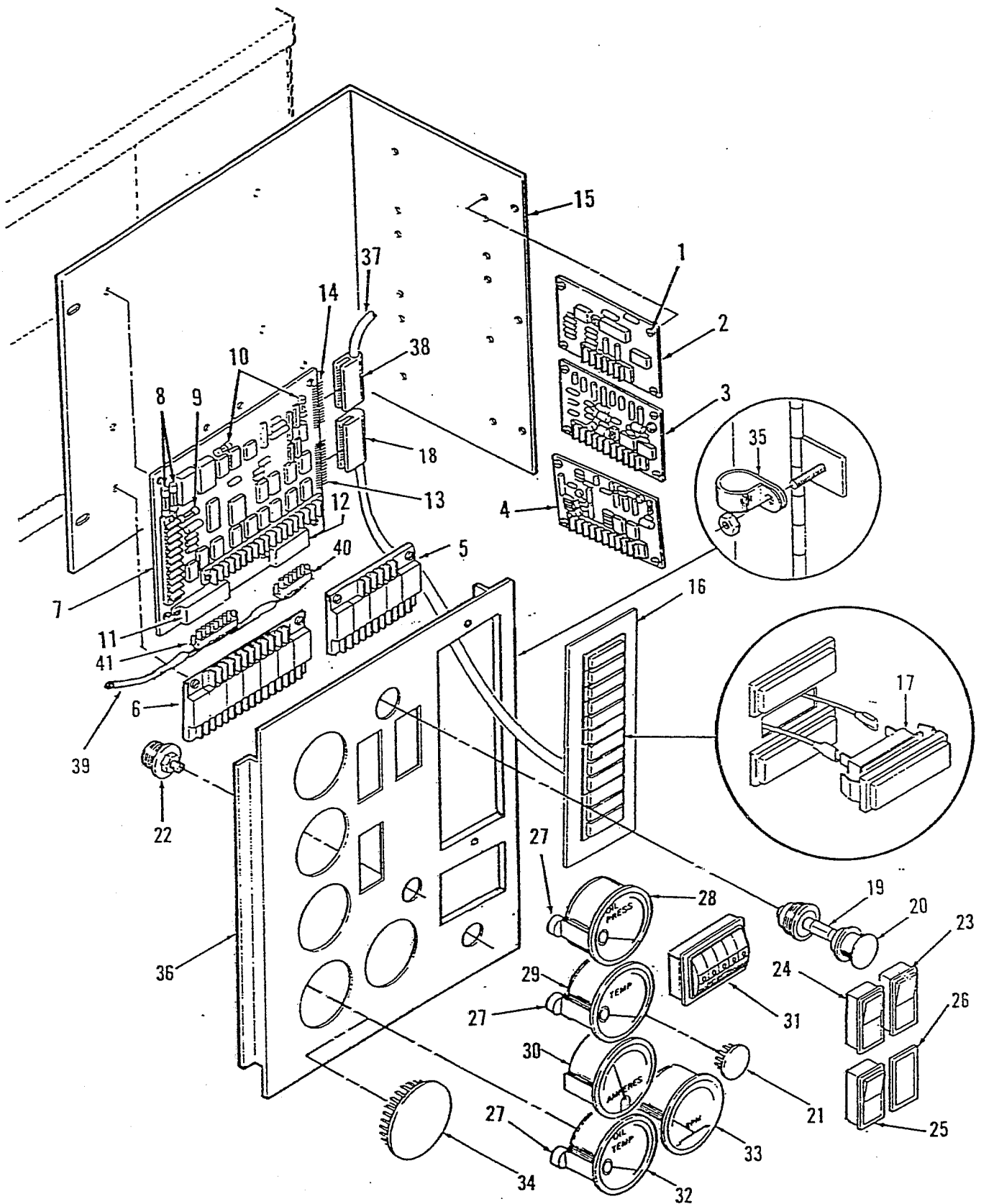


# Generator Set Control (With Housing Enclosure)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0005	18	Screw, Self-locking - Hex (#10-32 x 1/2")	12			Transformer, Current - Reconnectible
2	NFS	3	Panel, Box - Control	302-1794-09	3		500/1000:5 Ratio; 750kW Voltage Code H.
3	812-0156	4	Screw, Machine - Round Head (1/4-20 x 1/2")	302-1794-10	3		600/1200:5 Ratio; 900kW Voltage Code H.
4	850-0040	4	Washer, lock - Spring (1/4")	302-1794-11	3		750/1500:5 Ratio; 800kW Voltage Code Y 480VAC Only; 900kW Voltage Code K 480VAC Only.
5	NFS	1	Transformer Assy, Potential (See Separate Page for Components)	302-1794-12	3		1000/2000:5 Ratio; 800kW Voltage Code Y 380VAC Only.
6	800-0051	4	Screw, Cap - Hex Head (5/16-18 x 1/2")	302-1794-13	3		1500/3000:5 Ratio; 620kW Voltage Code Y, 750kW Voltage Code K, 800kW Voltage Code K 208VAC Only.
7	850-0045	4	Washer, Lock - Spring (5/16")	302-1794-14	3		2000/4000:5 Ratio; 900kW Voltage Code K.
8	NFS	1	Control, Set (See item 9 & 10 for Components)	13	508-0051	1	Grommet
9	NFS	1	Control, Engine (See Separate Page for Components)	14	870-0212	6	Nut, Self-locking - Hex
10	NFS	1	Control, Generator (See Separate Page for Components)	15	821-0018	6	Screw, Self-locking - Hex Head (1/4-20 x 5/8")
11	332-0941	6	Tie, Cable	16	NFS	1	Housing, Control
				17	NFS		Adapter, Housing to Terminal Box

NFS - Not For Sale

# **Engine Control Components (Sets with Housing Enclosure)**

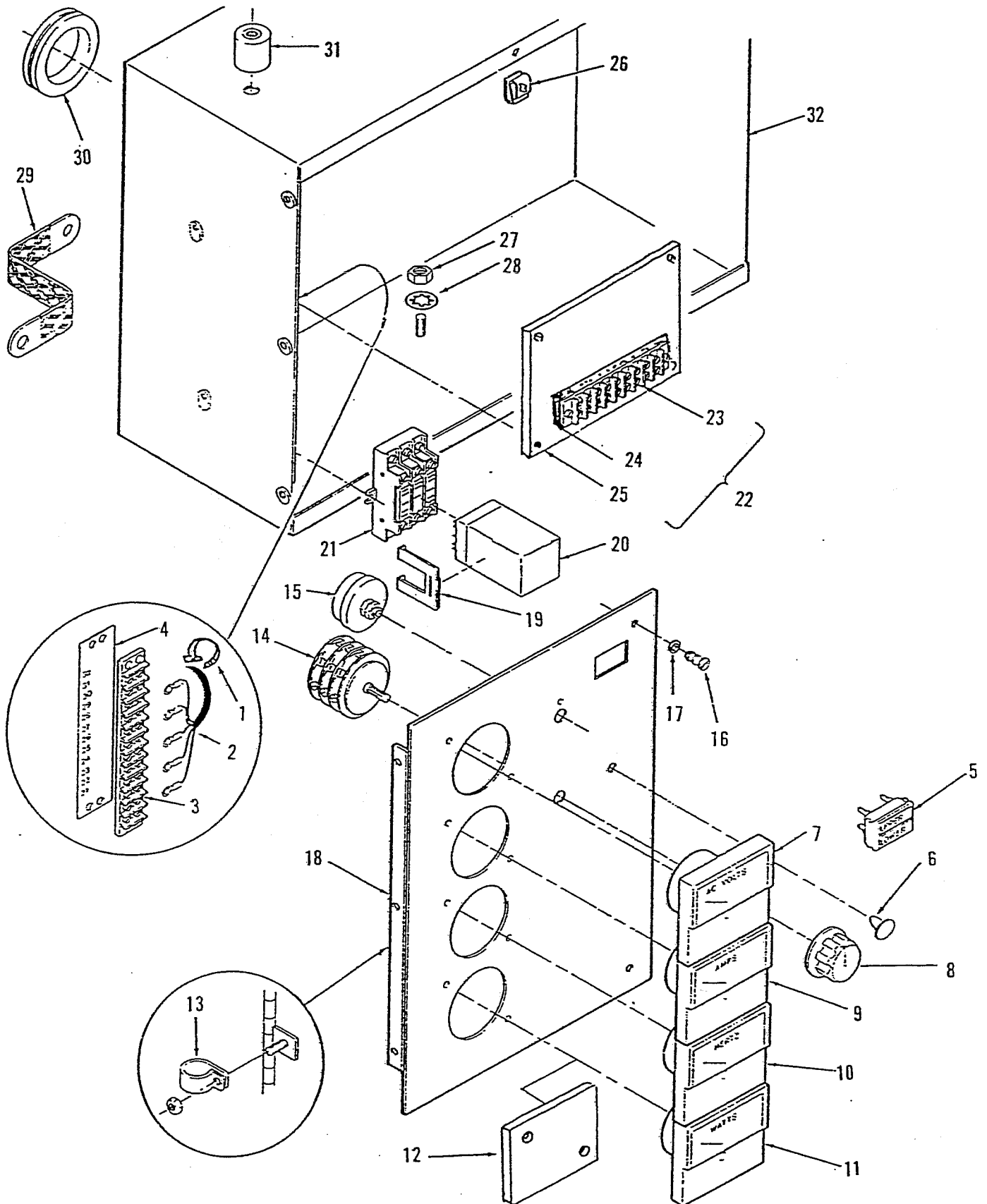


# **Engine Control Components (Sets with Housing Enclosure)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0544	24	Screw, Machine - Round Head With IT Lock Washer (#6-32 x 1/2")	17	322-0369-02	12	Lamp, Incandescent - 1/3 Watt 28 VDC
2	300-2899	1	Board, Time Delay, Start/Stop - 24 VDC (A15)	18	323-1310	1	Housing, 13 Pin (J3)
3			Board, Magnetic Sensor, Start Disconnect/Over Speed Sensor (A16)		323-1302	13	Contact, Pin
	300-2903	1	Standard	19	322-0017	1	Lamp, Incandescent - 28 VDC (DS11)
	300-2904	1	Precision	20	322-0361	1	Holder, Lamp
4	300-2906	1	Board, Over-Under Voltage Sensor - 24 VDC (A17)	21	517-0131	1	Plug, Button
5	300-2856	1	Board, Relay - 24 VDC (A13)	22	303-0280	1	Potentiometer (R11)
6	300-2863	1	Board, Relay - 24 VDC (A14)	23	308-0785	1	Switch, Push (S11)
7			Board, Engine Monitor (A11) (Includes Fuses and Connectors)	24	308-0784	1	Switch, Push (S12)
	300-2808	1	24 VDC, 2 Light	26	301-6257	1	Cover
	300-2812	1	24 VDC, 12 Light	27	193-0250	3	Resistor, Gauge (R12)
8	321-0270	2	Fuse, Cartridge - 20 Amp (F1, F2)	28	193-0352	1	Gauge, Pressure - Oil (M11)
9	321-0231	1	Fuse, Cartridge - 15 Amp (F3)	29	193-0351	1	Gauge, Temperature - Water (M12)
10	321-0094	2	Fuse, Cartridge - 5 Amp (F4, F5)	30	302-1790	1	Ammeter (M13)
11	323-1305	1	Connector, 8 Pin (P1)	31	302-0885	1	Meter, Totalizing - Time (M14)
12	323-1303	1	Connector, 6 Pin (P2)		815-0385	2	Screw, Machine - Round Head (#6-31 x 1/2")
13	323-1309	1	Connector, 13 Pin (P3)		870-0183	2	Nut, Hex with ET Lockwasher (#6-32)
14	323-1307	1	Connector, 12 Pin (P4)	32	193-0330	1	Gauge, Temperature - Oil (M15)
15	NFS	1	Bracket, Mounting	33	302-1873-01	1	Tachometer (M16)
	821-0004	4	Screw, Self-locking - Hex Hd (#10-32 x 5/16")	34	517-0221	1	Plug, Button
16			Module, Indicator - Fault (Includes replaceable lamps, Harness with connector housing & contact pins)(A12)	35	332-0052	1	Clamp, Loop
	322-0358-02	1	24 VDC, 2 Light		870-0131	1	Nut, Hex with ET Lockwasher (#10-32 x 1/2")
	322-0360-02	1	24 VDC, 12 Light	36	NFS		Door, Control
	815-0385	2	Screw, Machine - Round Head (#6-32 x 1/2")	37	338-1817	1	Harness, Wiring - DC Meter (Includes Connector & Pins)
	870-0183	2	Nut, Self-locking - Hex (#6-32)	38	323-1308	1	Housing, 12 Pin (J4)
					323-1302	12	Contact, Pin
				39	338-2170	1	Harness, Wiring - Control to Engine (Includes Connectors and Pins)
				40	323-1304	1	Housing, 6 Pin
					323-1200	6	Contact, Pin
				41	323-1306	1	Housing, 8 Pin
					323-1200	8	Contact, Pin

NFS - Not For Sale

# Generator Control Components (Sets with Housing Enclosure)



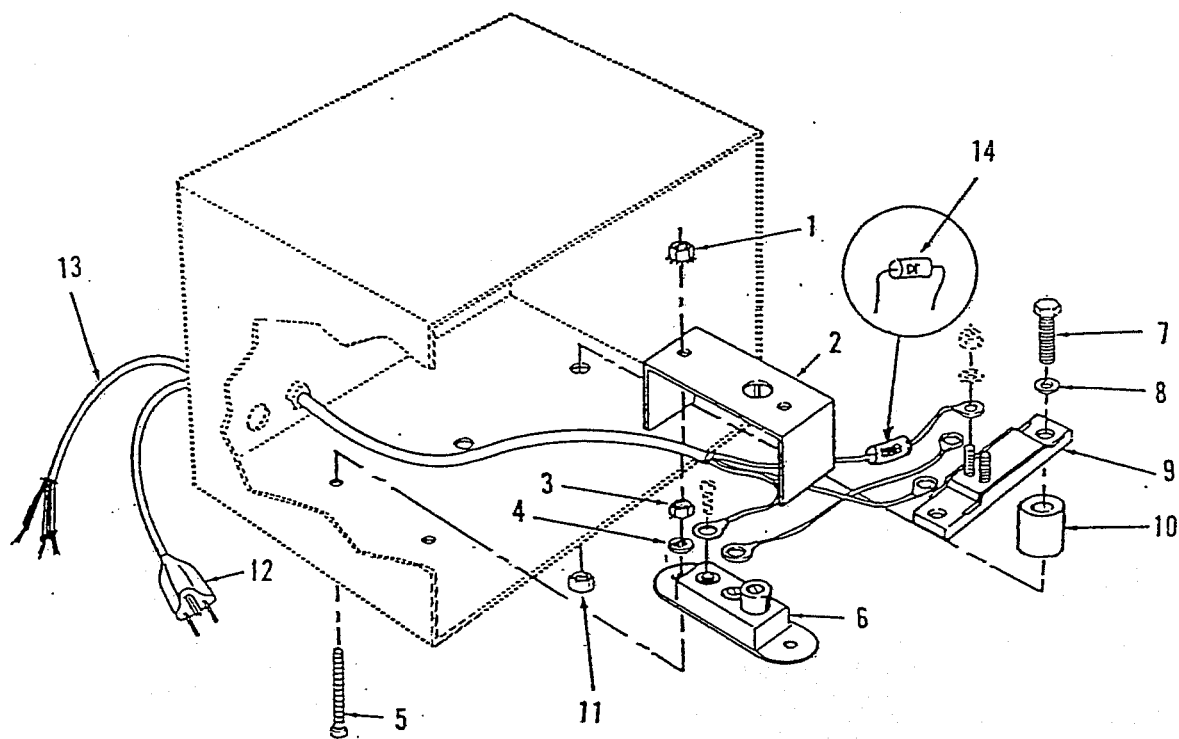


# Generator Control Components (Sets with Housing Enclosure)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-1445	2	Tie, Cable	13	332-0052	1	Clamp, Loop
2			Harness, Wiring		870-0131	1	Nut, Self-locking - Hex with ET Lock Washer (#10-32)
	338-1818	1	Control with Meters (Includes Terminal Block)	14	308-0284	1	Switch, Rotary (S21)
	338-1853	1	Control without Meters	15	303-0261	1	Rheostat (R21)
	812-0065	2	Screw, Machine - Round Head (#6-32 x 5/8")	16	406-0334	2	Clip, Fastener
3	332-0607	1	Block, Terminal (TB1)	17	406-0333	2	Stud, Fastener
4	332-2723	1	Strip, Marker	18	NFS	1	Door, Control
5	322-0363	1	Light, Indicator - Dual (DS21, DS22)		821-0004	3	Screw, Self-locking - Hex (#10-32 x 5/16")
6	517-0131	1	Plug, Button	19	307-1987	2	Clip, Relay
7			Voltmeter (M21)	20	307-1056	1	Relay, 24 VDC (K21)
	302-1148	1	Dual Scale 0-300/0-600V	21	323-0804	1	Socket, Relay
	302-1753	1	Single Scale 0-750V		815-0544	2	Screw, Machine - Round Head with IT Lock Washer (#6-32 x 1/2")
8	303-0032	1	Knob	22	NFS	1	Terminal Board Assembly
9			Ammeter (M22)		812-0065	4	Screw, Machine - Round Head (#6-32 x 5/8")
			Single Scale Voltage Code H	23	332-0751	1	Block, Terminal
	302-1732	1	750kW, 0-1000 Amp		812-0066	2	Screw, Machine - Round Head (#6-32 x 3/4")
	302-1733	1	900kW, 0-1200 Amp	24	332-0853	1	Strip, Marker
			Dual Scale Voltage Code Y	25	NFS	1	Plate
	302-1799	1	620kW, 0-1500/0-3000 Amp, all voltages, 800kW, voltages 208 & 480 VAC Only.	26	406-0332	2	Receptacle, Fastener
			800kW, 0-2000/0-4000 Amp, 380 VAC Only.	27	871-0015	1	Nut, Hex (1/4-20)
	302-1800	1	Dual Scale Voltage Code K	28	853-0013	1	Washer, Lock - ET (1/4")
			750kW, 0-1500/0-3000 Amp, all voltages, 900kW voltage 480 VAC Only.	29	337-0049	1	Strap, Electrical (Ground)
	302-1799	1	900kW, 0-2000/0-4000 Amp, 208 & 380 VAC Only.		800-0024	1	Screw, Cap - Hex Head (5/16-18 x 1/2")
					856-0008	1	Washer, Lock - EIT (5/16")
10	302-1720	1	Meter, Frequency (M23)	30	508-0051	1	Grommet
11		1	Wattmeter (M24) (See Separate page for Components)	31	402-0527	2	Mount, Vibration
					800-0051	4	Screw, Cap - Hex Head (5/16-18 x 1/2")
12	NFS	1	Cover, Meter Hole		850-0045	4	Washer, Lock - Spring (5/16")
	815-0385	2	Screw, Machine - Round Head, Black (#6-32 x 1/2")	32	NFS	1	Box, Control
	870-0183	2	Nut, Hex with ET Lockwasher (#6-32)				

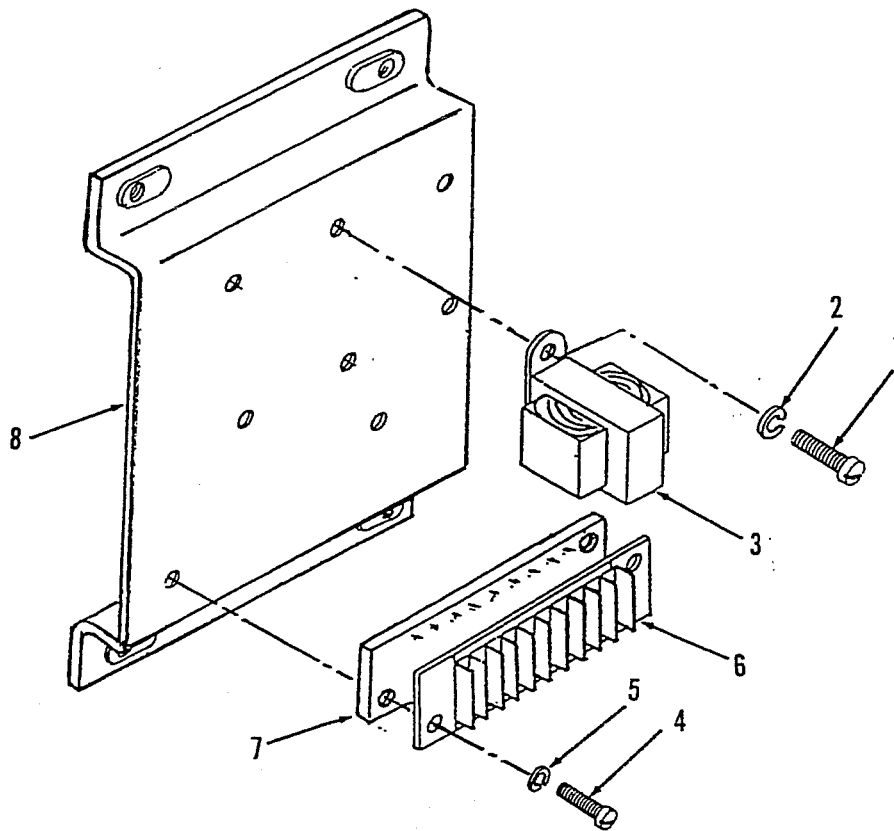
NFS - Not For Sale

# Control Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0183	2	Nut, Self-locking - Hex (#6-32)	9	333-0151	1	Heater, Electrical 120VAC
2	301-1886	1	Cover		333-0378	1	240VAC
3	860-0006	1	Nut, Hex (#6-32)	10	130-1107	2	Spacer
4	854-0006	2	Washer, Lock - IT (#6)	11	870-0257	2	Nut, Self-locking - Hex (5/16-18)
5	812-0070	2	Screw, Machine - Round Head (#6-32 x 1-1/4")	12	335-0161	1	Cable, Electrical (120VAC Application)
6	309-0128	1	Thermostat, Adjustable	13	338-2121	1	Harness Wiring with Diode, less plug (240VAC Application)
7	800-0034	2	Screw, Cap - Hex Head (5/16-18 x 2-1/4")	14	357-0013	1	Diode
8	526-0113	2	Washer, Flat (5/16")	15	98-3232	1	Decal, Warning - Shock Hazard (Not Illustrated)

# Potential Transformer

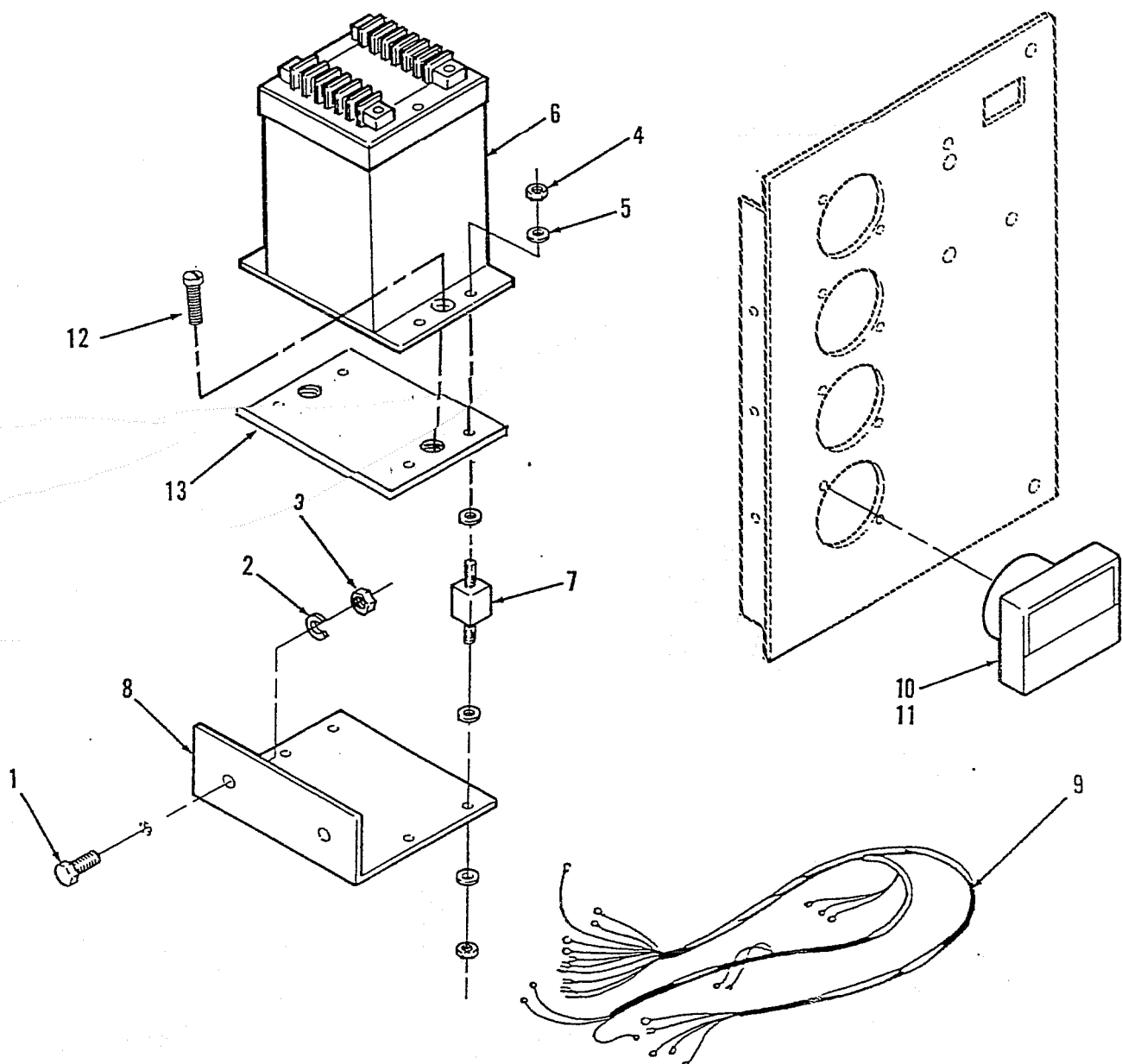


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0079	6	Screw, Machine - Round Head (#8-32 x 1/2")	5	850-0025	2	Washer, Lock - Spring (#8)
2	850-0025	6	Washer, Lock - Spring (#8)	6	332-2562	1	Block, Terminal (10 Place)
3	315-0642	3	Transformer, Potential	7	332-2563	1	Strip, Marker
4	812-0077	2	Screw, Machine - Round Head (#8-32 x 3/8")	8	NFS	1	Bracket, Mounting

NFS - Not For Sale



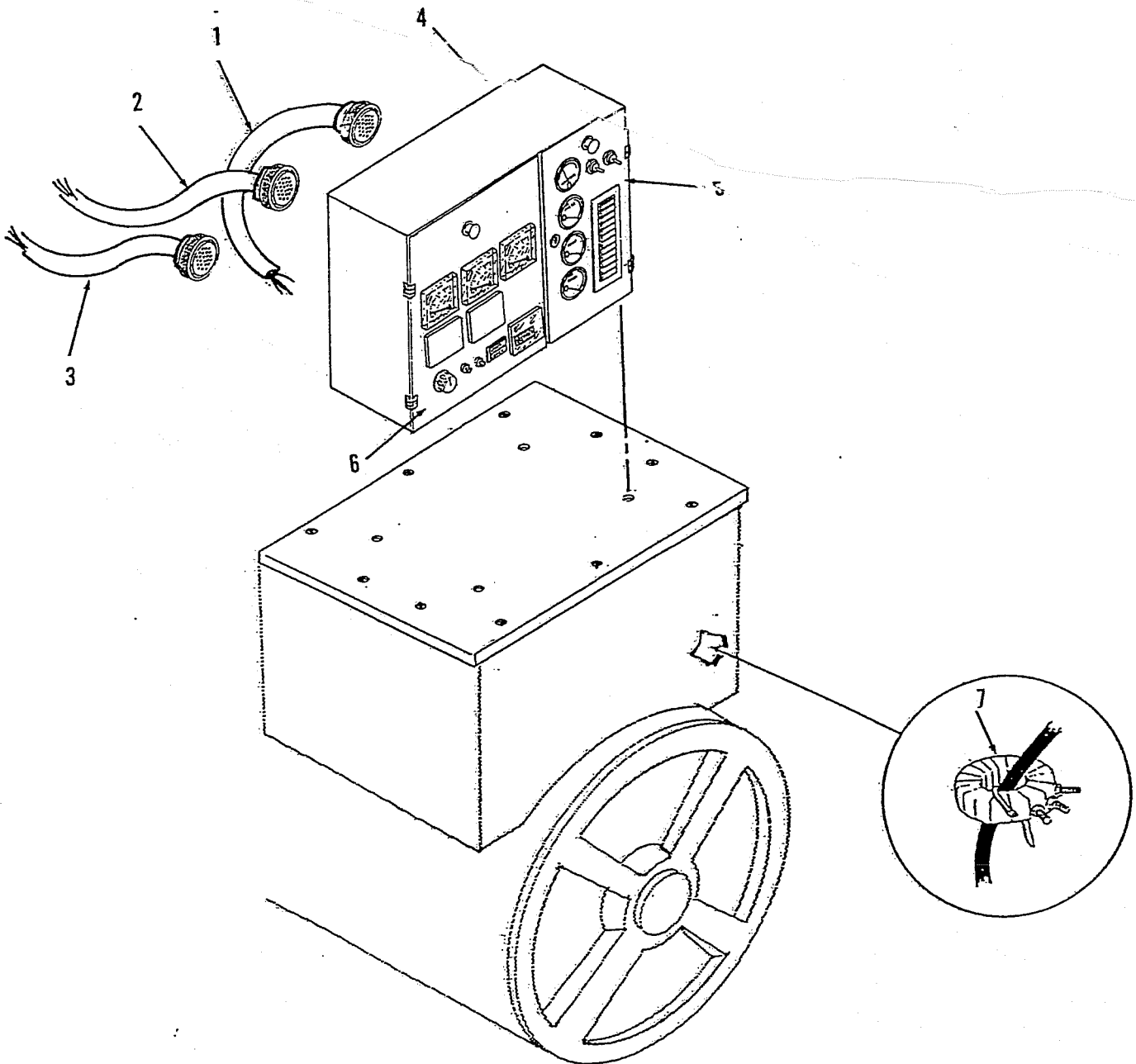
# **Wattmeter** (Sets with Housing Enclosure)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0017	2	Screw, Cap - Hex Head (5/16-18 x 1/2")
2	850-0045	2	Washer, Lock (5/16)
3	862-0014	2	Nut, Hex (5/16-18)
4	860-0008	8	Nut, Hex (#8-32)
5	856-0002	16	Washer, Lock - ET (#8)
6	302-1833-01	1	Transducer, Watt
7	402-0354	4	Mount, Shock

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
8	301-6987	1	Bracket, Mounting
9	338-1936	1	Harness, Wiring
10	302-1722	1	Wattmeter (Less Dial)
11	302-1721-16	1	Dial, Wattmeter Scale 0-800 kW
	302-1721-17	1	Scale 0-1200 kW
12	813-0102	2	Screw, Machine - Round Head (#10-32 x 3/8")
13	319-0030	1	Plate, Support - Transducer

Generator Set Control  
(Without Housing Enclosure)

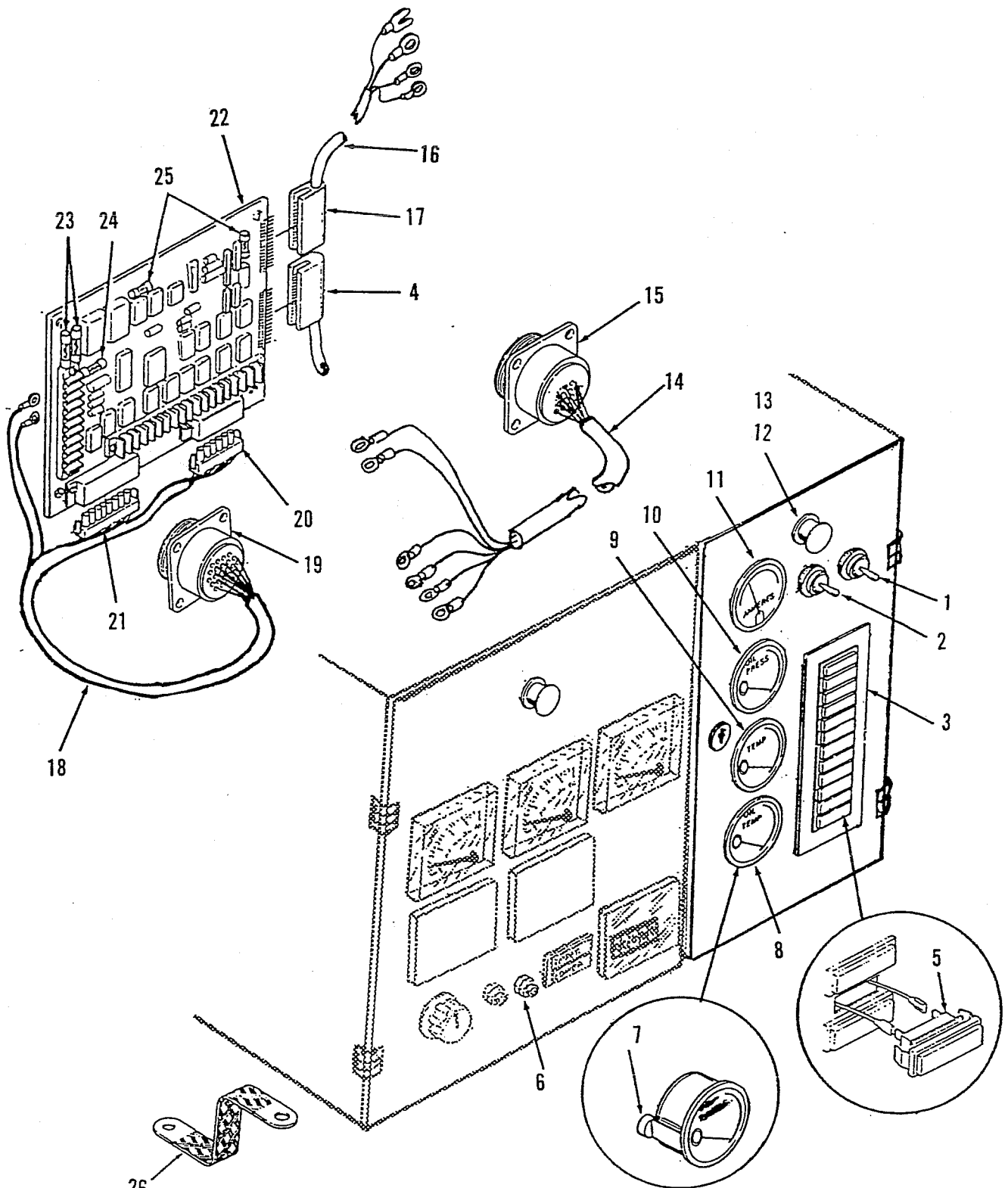


**Generator Set Control  
(Without Housing Enclosure)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-2200-01	1	Harness, Wiring - Control to Generator (Includes a connector Housing)	7			Transformer, Current (Select As Applicable)
	323-1135	1	Housing, Connector (J21)	302-1785-01	3		1200:5 Ratio
	323-1193	4	Contact, Pin	302-1785-02	3		1500:5 Ratio
	323-1194	10	Contact, Pin	302-1785-03	3		1600:5 Ratio
2	338-2198-01	1	Harness, Wiring - Control to Governor (Includes a connector housing)	302-1785-04	3		2000:5 Ratio
	323-1135	1	Housing, Connector (J12)	302-1785-05	3		2500:5 Ratio
	323-1193	4	Contact, Pin	302-1785-06	3		2000:5 Ratio (380V Only)
	323-1194	10	Contact, Pin	302-1785-07	3		3000:5 Ratio
3	338-2193-01	1	Harness, Wiring - Control to Engine Components (Includes a connector housing)	302-1785-08	3		4000:5 Ratio
	323-1206	1	Housing, Connector (J11)	302-1785-09	3		5000:5 Ratio
	323-1194	20	Contact, Pin	302-1786-01	3		500/1000:5 Ratio
4	NFS	1	Control, Set (See item 5 & 6 for Components)	302-1786-02	3		600/1200:5 Ratio
			Attaching Parts for Control	302-1786-03	3		750/1500:5 Ratio
	402-0527	4	Mount, Vibration	302-1786-04	3		800/1600:5 Ratio
	800-0051	8	Screw, Cap - Hex Head (5/16-18 x 1/2")	302-1786-05	3		900/1800:5 Ratio
	850-0045	8	Washer, Lock - Spring (5/16")	302-1786-06	3		1000/2000:5 Ratio
5	NFS	1	Control, Engine (See Separate	302-1786-07	3		1200/2400:5 Ratio
6	NFS	1	Control, Generator (See Separate Page for Components)	302-1786-08	3		250/500:5 Ratio
				302-1786-09	3		300/600:5 Ratio
				302-1786-10	3		400/800:5 Ratio
				302-1786-11	3		375/750:5 Ratio
				302-1786-12	3		75/150:5 Ratio
				302-1786-13	3		100/200:5 Ratio
				302-1786-14	3		150/300:5 Ratio
				302-1786-15	3		200/400:5 Ratio
				302-1786-16	3		1500/3000:5 Ratio

NFS - Not For Sale

# **Engine Control Components (Sets without Housing Enclosure)**

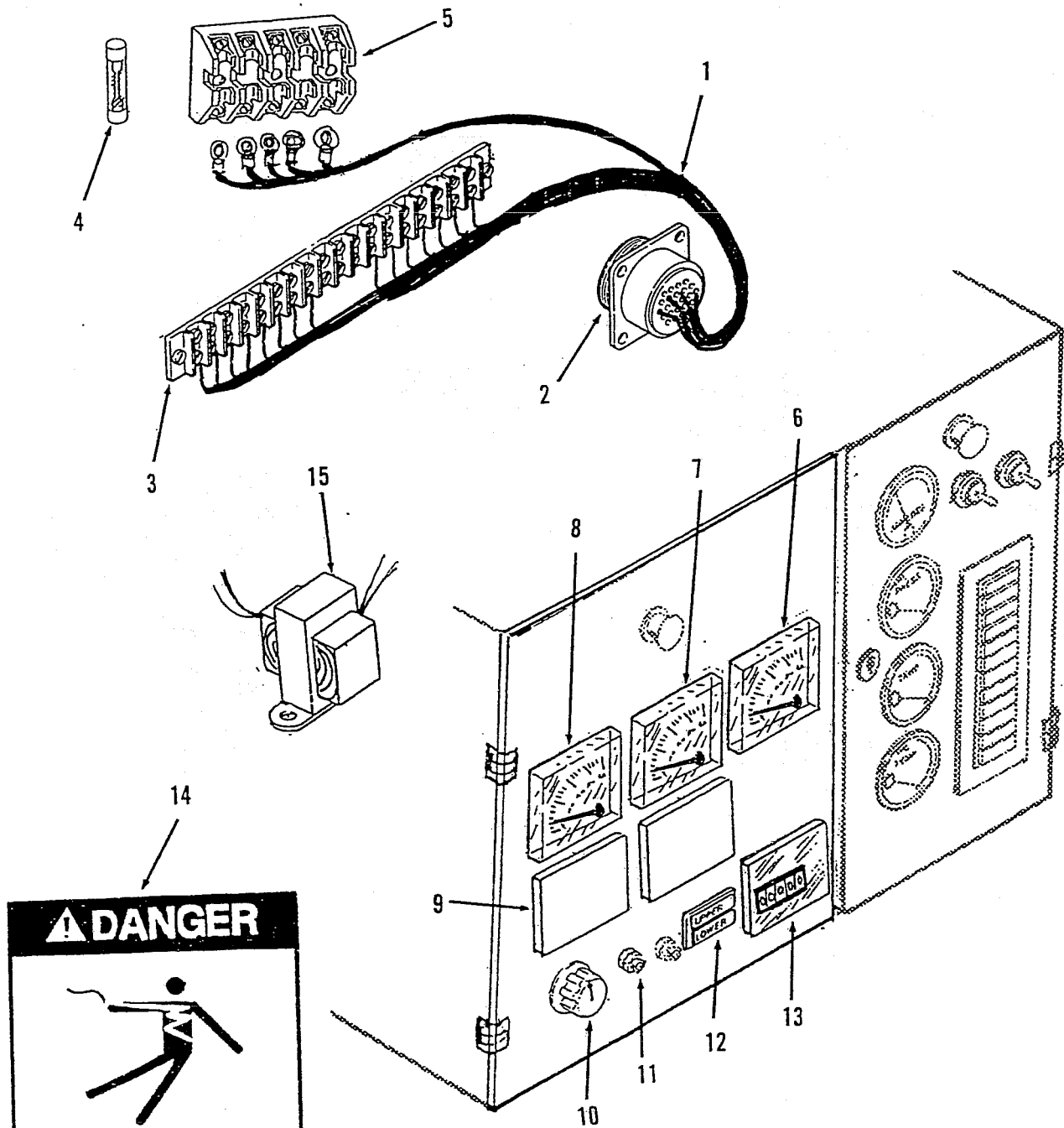





# **Engine Control Components** (Sets without Housing Enclosure)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	308-0625	1	Switch, Push (S12) [Run/Stop/Remote]	15	323-1134	1	Housing, Connector (P12)
2	308-0900	1	Switch, Push (S11) [Reset/Panel Light]		323-1192	4	Contact, Socket
3			Module, Indicator - Fault (Includes Harness with a Connector Housing & Contact Pins, Replaceable Lamps) (A12)		323-1195	10	Contact, Socket
	322-0358-02	1	24 VDC, 2 Light		323-1190	2	Key
	322-0360-02	1	24 VDC, 12 Light	16	338-1817	1	Harness, Wiring - Engine Monitor Board to Meters (Includes Connector Housing)
	815-0385	2	Attaching Parts for Module Screw, Machine - Round Head (#6-32 x 1/2")	17	323-1308	1	Housing, Connector (J4)
	870-0183	2	Nut, Self-locking - Hex (#6-32)	18	323-1302	15	Contact, Pin
4	323-1310	1	Housing, Connector (J3)				Harness, Wiring - Engine to Engine Monitor Board (Includes Connector Housings, Terminals and Contacts)
	323-1302	13	Contact, Pin		338-2241-01	1	Control with 2 Light Module
5	322-0369-02	1	Lamp, Incandescent - 1/3 Watt 28 VDC		338-2200-01	1	Control with 12 Light Module
6	303-0289	1	Rheostat - Speed Control (R23)	19	323-1207	1	Housing, Connector (P11)
7	193-0250	3	Resistor, Gauge (R11,R12,R15)		323-1195	22	Contact, Socket
8	193-0330	1	Gauge, Temperature - Oil, 12 VDC (M15) or		323-1190	1	Key
	302-1715	1	Tachometer (M16) or	20	323-1304	1	Housing, Connector (J2)
	302-1723	1	Gauge, Blank		323-1200	6	Contact, Pin
9	193-0351	1	Gauge, Temperature - Water, 12 VDC (M12)	21	323-1306	1	Housing, Connector (J1)
10	193-0352	1	Gauge, Pressure - Oil, 12 VDC (M11)		323-1200	8	Contact, Pin
11	302-1790	1	Ammeter (M13)	22			Board, Engine Monitor (A11) (Includes Fuses)
12	322-0017	1	Lamp, Incandescent - 28 VDC (DS10,DS11)		300-2808	1	24 VDC, 2 Light
13	322-0361	2	Holder, Lamp		300-2812	1	24 VDC, 12 Light
14			Harness, Wiring - Governor to Speed Control & Tachometer (Includes Connector Housing)	23	321-0270	2	Fuse, Cartridge - 20 Amp (F1, F2)
	338-2279-01	1	Control with 2 Light Module	24	321-0231	1	Fuse, Cartridge - 15 Amp (F3)
	338-2290-01	1	Control with 12 Light Module	25	321-0094	2	Fuse, Cartridge - 5 Amp (F4, F5)
					815-0544	4	Attaching Parts for Module Screw, Machine - Round Head With IT Lock Washer (#6-32 x 1/2")
				26	337-0049	1	Strap, Electrical - Ground

# Generator Control Components (Sets without Housing Enclosure)



**⚠ DANGER**



**Danger haut voltage.**  
Peut causer des blessures graves ou la mort.  
Débrancher toutes sources d'alimentation avant d'effectuer des réparations.

---

**Hazardous voltage.**  
Will cause severe injury or death.  
Disconnect all electrical supply sources before servicing.

**Generator Control Components  
(Sets without Housing Enclosure)**

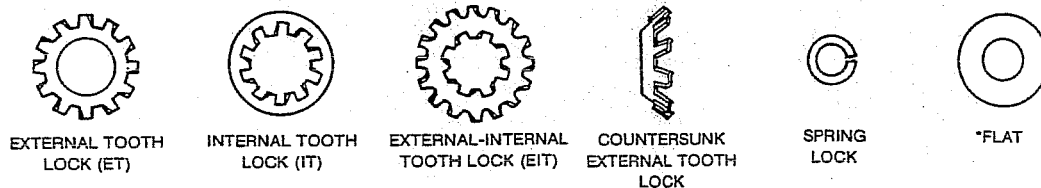
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Wiring (Includes Connector and Terminal Strip)		302-1839-09	1	0-300/0-600 Amp
	338-2280-01	1	Sets with 12 Lead Generator		302-1839-10	1	0-400/0-800 Amp
	338-2281-01	1	Sets with 6 Lead Generator		302-1839-11	1	0-375/0-750 Amp
2	323-1134	1	Housing, Connector (P21)		302-1839-12	1	0-75/0-150 Amp
	323-1192	4	Contact, Socket		302-1839-13	1	0-100/0-200 Amp
	323-1195	10	Contact, Socket		302-1839-14	1	0-150/0-300 Amp
	323-1190	1	Key		302-1839-15	1	0-200/0-400 Amp
3		1	Terminal, Strip (18 Place)		302-1839-16	1	0-1500/0-3000 Amp
4	321-0293	5	Fuse F1 thru F5		302-1839-17	1	0-2000/0-4000 Amp
5	321-0294	1	Holder, Fuse		302-1840-01	1	0-1200 Amp
6	302-1842	1	Meter, Frequency (M23)		302-1840-02	1	0-1500 Amp
7	302-1841-03	1	Voltmeter (M21)		302-1840-03	1	0-1600 Amp
8			Ammeter (M22)		302-1840-04	1	0-2000 Amp
			Dual Scale		302-1840-05	1	0-2500 Amp
	302-1839-01	1	0-500/0-1000 Amp		302-1840-07	1	0-3000 Amp
	302-1839-02	1	0-600/0-1200 Amp		302-1840-08	1	0-4000 Amp
	302-1839-03	1	0-750/0-1500 Amp		302-1840-09	1	0-5000 Amp
	302-1839-04	1	0-800/0-1600 Amp	9	302-1849	2	Meter, Blank
	302-1839-05	1	0-900/0-1800 Amp	10	308-0883	1	Switch, Rotary (S21)
	302-1839-06	1	0-1000/0-2000 Amp	11	303-0287	1	Rheostat (R21)
	302-1839-07	1	0-1200/0-2400 Amp	12	322-0363	1	Light, Indicator - Dual (DS21, DS22)
	302-1839-08	1	0-250/0-500 Amp	13	302-1850	1	Meter, Time Totalizing (M14)
				14	98-5724	2	Decal (Warning)
				15	315-0664	3	Transformer, Potential (T21 - T23)
		-cont-					



# HARDWARE IDENTIFICATION

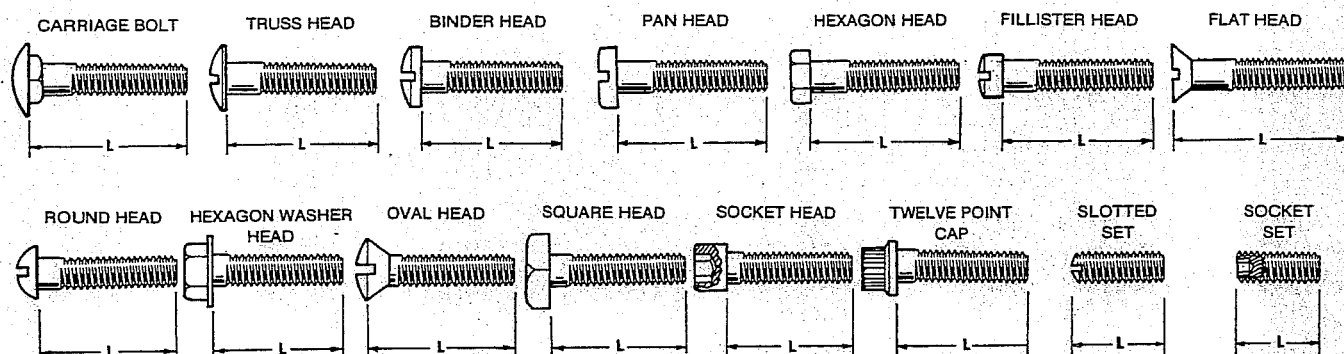
Illustrated hardware items are only for identification purposes. All hardware items listed throughout this parts catalog are steel SAE grade five (5) or lower (zinc plated with clear chromate dip) unless parts description indicates differently. All dimensions are in inches.

## WASHER TYPES



\* - Flat washer dimensions given are: Inside Diameter (ID), Outside Diameter (OD) and Thickness (Thk).

## BOLT AND SCREW TYPES



L - Measure length between these points.

### INTERNAL DRIVE TYPES



Nominal size (fractional diameter or screw number)  
Number of threads per inch  
Length in inches

1/4-20 x 3/4"

## NUT TYPES





Onan Corporation  
1400 73rd Avenue N.E.  
Minneapolis, Minnesota 55432

Telephone: (612) 574-5000  
Telex: 275477  
Cable ONAN